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REST AT THE PLOUGH

BY DUNCAN MCKELLAR

Stopping awhile on the headland,
Resting his weary team,
Lazily watching the sunlight
On the glittering mould-board gleam,
The ploughman, relaxed from his labour,
Sits with his mind adream.

From the new-turned furrow fragrant,
Up to his nostrils flow,
Odors of Earth's deep breathing,
Rich with the life below,
That quickens the tree and the flower,
Warmed in the vernal glow.

The diligent barn-fowl forage
After his rending share,
Cawings of crows in the distance
Softly are borne to him there,
Or sweeter, the song birds calling
Waken the slumbrous air.

He notes how the grass is springing
After its winter rest,
He marks the great elms and the maples,
In pale new verdure, dressed,
And a robin that near him gathers
A straw for his building nest.

He sees in the fresh, brown furrows,
How much since the morn he's done;
Then rouses again to his labour,
For he knows that one by one,
He must many add to the ridged expanse,
E'er quitting at set of sun.

THE O. A. C. REVIEW

"THE PROFESSION WHICH I HAVE EMBRACED REQUIRES A KNOWLEDGE OF EVERYTHING"

VOL. XXXV.

GUELPH, ONT., APRIL, 1923

No. 8

Fire Destruction In Our North Land

BY J. J. MORRISON, SECRETARY UNITED FARMERS OF ONTARIO

THE extent of the calamity that befell Northern Ontario in October of last year when fire swept over the land is gradually fading from our vision and memory only retains it in ever-diminishing proportion as a regrettable, but unpreventable mishap that may occur again should like conditions prevail. True, no doubt, unless we see to it that like conditions do not prevail. The periodical recurrence of these fires in our North Land is measured in our memory not by their frequency but by their comparative destructiveness, one with the other. From this viewpoint the fire of last October is the greatest that has yet occurred in the Temiskaming District.

Although in the fire of 1916, which centred in Matheson District, more lives were lost than in the fire of October last, it was not nearly so great a fire as the later one and very much less property was destroyed. This was because of the compact form in which the Matheson fire operated, while the fire in October last swept along in great columns, spreading out at places that afforded the most material to be consumed. As town, village or hamlet came in the way of these columns of destruction that acted like a blow-pipe, everything inflammable in their path was destroyed, leaving behind only blackened ruins. Over 1,200 square miles laid desolate—where towns and villages once stood, remains of masonry and twisted steel girders only were left;

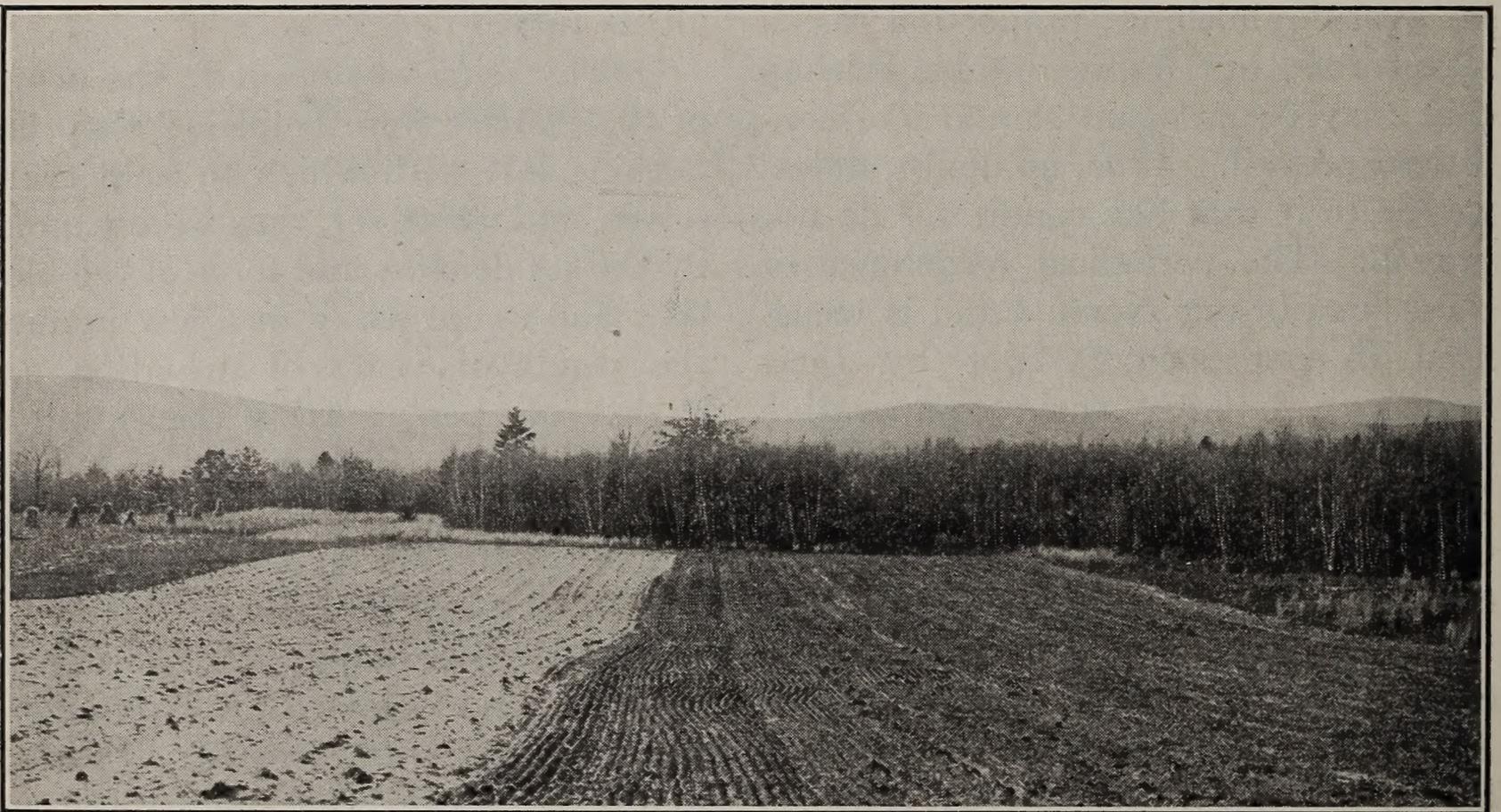
1,800 families homeless, hundreds of farms swept bare of shelter or food for any living thing, and this at a time when the rigors of a Northern Winter were about to descend upon them in all its fury.

Quick action was needed; the people of the district were helpless; they had nothing left with which to help themselves, and moreover, they were stunned by the suddenness and force of the blow that had swept away in a few minutes the result of years of privation and labor. No person knew the extent of the calamity. Telephone and telegraphic communication were destroyed.

The country, as far as could be seen by those who escaped, was a smoking ruin. Rain, welcome, though too late to save the destruction, cleared the atmosphere. Relief parties were formed; the dead were gathered in; the hungry were fed and order and system appeared where all was chaos. Tales of great suffering were offset by stories of self-denial and bravery that cause one to feel that after all in this mad age of materialism, hidden away among unknown and belittled common people, great souls still live, unknown even to themselves, until stern reality calls forth the dormant greatness from within. Then, too, came the comforters, those who suffered not, but shared their all with those who did, keeping no track of what they gave or to whom they gave. Homes spared by the flames were thrown open,—race and creed, though there are many in

this new country, were forgotten—and the sweetness of a true community spirit prevailed. Even though it lasted but for a week, what a lesson it should teach us! Why does it require sorrow and disaster to cause us to forget self-ambitious, greedy, haughty self? On the heels of immediate relief came the comforters—the big souls so much needed in times of disaster—those who can raise the drooping spirits of the ones who falter and prevent stampede among souls less resolute than they. Everywhere they were in evidence, not

aided by the Red Cross Movement and the U. F. O. It was a race with time, as winter was rapidly approaching, and shelter, heating, food and warm clothing had to be provided; fodder for stock also had to be secured. About a fortnight after the fire, snow whitened the blackened waste, and added a new discomfort to the homeless, and to the live stock, seeking vainly to satisfy their hunger in spots that had escaped the flames. As lumber arrived, shacks appeared almost as rapidly as they had been destroyed. Sunday was set aside



When the Spirit of the Pioneer is Strong

men alone, but women as well, among those pioneers of a new country, real heroes, unheard of and unknown, even to themselves, until the call came and they answered true. Some day, perhaps, a white-haired heroine laboring among them now, known only by those to whom she renders relief, may relate to the public tales of service and self-sacrifice rendered in this Northern Ontario disaster that may cause us to realize that heroes are yet with us.

Organized relief came quickly—first by the Government of the Province,

as well as the eight-hour day, and men's timekeeper was daylight and darkness only. By degrees, the magnitude of the disaster was realized by the rest of the Province. Relief of all kinds began to roll Northward, and soon a real congestion of clothing—some good and some not so good—resulted, but all given from the same beneficent spirit, reflecting to the lasting credit of the people of Ontario. Money was also contributed generously, and as one looks back over what took place, only surprise is felt that so little suffering

was endured. Speaking from the records of the U. F. O. alone, over \$20,000 cash and 175 cars of various relief were sent forward, so that the spirit of penury was replaced by one of generosity, confined to no one class, nationality or creed. The people of the devastated district exhibited great endurance and cheerfulness. Few complaints were heard, and no person wanted to leave the country; although quite a few had been burned out before. The spirit of the pioneer was yet strong within them, and to start again and forget it expresses the feeling most prevalent.

The provisional relief committee has been replaced by a permanent one of representative character, whose duties and limitations are governed by Order-in-Council and the work of relief is being superseded by one of rehabilitation. No stereotyped plans could be followed—urban and rural difficulties were not similar, even individual cases in either class were not alike and only common horse sense could be employed in dealing with them as they arose. Rural problems are far greater than urban, because relief must continue for a much longer term; that is, until Nature provides the farmer with a new harvest on which to live and his stock a new crop of grass on which to feed. Besides, there was little insurance on the country buildings; they were considered as hazardous risks, owing to proximity to bush fires. Thus, the rural loss presented far greater problems than did cases of urban dwellers who worked in mines, pulp mills or lumber camps. These latter cases faded away as new shacks were built and men resumed work.

The rural case is one of difficulty, embracing buildings, machinery, harness, vehicles, seed and, one may say, credit—for it, too, faded away as the tangible asset of security vanished in

smoke. The country needs the pioneer settlers quite as much as they need the country; therefore, it is good business to aid to a reasonable extent those who were of sufficient courage and determination to start again. Thus, as the difficulties of relief lessened, those of rehabilitation increased. The outstanding feature of the relief work is that without any permanent or skilled authoritative committee or force to cope with such a condition as existed immediately after the fire, it is remarkable that there is so little evidence of disorder or hardships. No doubt this is attributable to the existence of two great institutions, the Red Cross Society and the United Farmers of Ontario—the former centering chiefly in urban communities but aiding all the needy who applied for relief, and the latter centering in the rural districts, but aiding all alike, whether members of the organization or otherwise. Had it not been for the U. F. O., relief would have been much more difficult and hardship would have ensued, because there were many outlying districts, far removed from railway points where ready relief was known of and easily accessible. To fully understand this fact, remember vehicles and harness were destroyed, in some cases horses as well. Many culverts and some bridges were also destroyed, so communication was rendered very difficult; thus the machinery of the U. F. O. demonstrated its usefulness. Club officers acted as relief distributing committees; whole districts were looked after; lists of sufferers prepared; and no one was permitted to suffer because of reticence or ignorance of the noble work of relief voluntarily promoted by sympathizing older Ontario. The work of rehabilitation is well under way and although it will be many years before the burned area of Temiskaming will have the same degree

of either comfort or appearance in buildings that it enjoyed before the fire, still there is no doubt that even better buildings will be erected as these hardy pioneers recover from this great disaster from which they suffered through no fault of their own. But what of the future—is there no way to prevent or limit these ever-recurring fire disasters? The resident settlers say there is, but their proposals do not conform to those of officialdom who never get past the stage of just talk. In mixing with these settlers, one is impressed with the earnestness of what they say and also with the practicability of what is advised. It is to be hoped that this

Relief Committee will, before they release their work as completed, make recommendations to the Government regarding prevention of these tragedies. Fire traps that endanger life are not tolerated in urban centres—why should they be tolerated in rural sections, and why should Governments induce unsuspecting immigrants to settle in such dangerous places if the danger cannot be minimized? It is time public opinion called a halt.

NOTE:—Detail relating to relief work has been purposely avoided. The Committee will, no doubt, publish a statement when work is complete.

Solving The Growers' Problem By Plant Breeding

BY E. F. PALMER, B.S.A., VINELAND STATION, ONT.

(CONTINUED FROM MARCH)

PEACH BREEDING

IN BREEDING for a seasonal succession of peaches of the Elberta type, two methods have been followed. First, open pollinated seedlings have been grown and fruit in considerable numbers. Second, definite crosses have been made, the resulting number of trees being, of course, much smaller in this method, owing to the various limiting factors incident to hand pollinations.

Approximately 2,200 open pollinated seedlings of Elberta have been fruited since 1918. In one block of 900, fruiting in 1921 for the first time, the selection record has been as follows: 1921, 49 trees left for further observation; 100 left which did not fruit; remainder

destroyed. 1922, remainder destroyed with the exception of 28 trees, six of which did not fruit; 19 considered of possible value, two promising and one very promising (No. 150369).

In a second block of 1,000 Elberta seedlings, fruiting in 1921 for the first time, 109 non-fruiting trees have been left, 38 have been retained for further trial, and one selected as promising (No. 174770). A further block of 50 Elberta seedlings has given two promising late season peaches (No. 173527 and 173528).

With rare exceptions the hundreds of Elberta seedlings bear a marked resemblance to the parent tree in growth characters and in fruit. The parentage of but few could be mistaken. Prob-

ably 15 or 20 per cent. could have been propagated and distributed as Elberta with no one the wiser. Approximately 3 per cent. were white flesh and 15 per cent. semi-cling or clingstone. A fair number were moderately good in quality, none exceptional, the majority, however, being of Elberta quality or worse. The variation in season from Elberta, with a few notable exceptions, was slight, ranging from a week before to a week after the regular Elberta season.

This constancy to parental type has been just as pronounced where other varieties have been used. Five hundred open pollinated seedlings of Longhurst could not be mistaken for anything but Longhurst seedlings. Only one was retained, more to preserve the type, the remainder destroyed. Five hundred and fifty open pollinated seedlings of Lemon Free were almost identical with the parent. Only a very occasional tree bore fruit with even a suggestion of color other than dead yellow. There were of course slight variations in season, clinginess, flesh texture, etc., but nothing marked. Practically all were destroyed, none promising. Six hundred New Prolific seedlings gave similar results, as also 200 Reeves Favorite seedlings, in resemblance to parental type.

In the case of the Reeves Favorite, however, several were of sufficient promise to warrant saving them. A block of 700 Early Crawford seedlings were uniformly high in quality of fruit, but were practically without exception as unproductive as the parent, and like it in other ways.

This suggests the possibility of propagating peach varieties from seed. So far as our observations go, the only objection is the increased susceptibility to disease which F2 trees show.

The fact that open pollinated seed-

lings of peaches come so true to type, suggests that they are usually self-pollinated under orchard conditions. The pits used in our work were taken from our variety test orchard, in which were upwards of 150 varieties, with only a few trees of each variety. There was every opportunity for natural crossing. That natural selfing is the usual condition is also shown by the small percentage of promising seedlings in the open pollinated lots as compared with the hybrid progeny. We have found that the known hybrids give a much higher percentage of worth while seedlings. Also we are of the opinion that the four promising selections in the open pollinated seedlings of Elberta are natural hybrids as evidenced by their marked departure in season from the apparent normal for Elberta seedlings.

In the definite peach hybridizing work we have crossed Elberta with several other varieties, notably Greensboro, Yellow Swan, Arp, St. John and Early Crawford. Of course many other peach crosses have been made, but in this paper reference is made only to those in which Elberta is one of the parents.

The above varieties, Greensboro, Yellow Swan, etc., are all earlier in season than Elberta. The hybrids have been uniformly intermediate in season. In the case of the Elberta-Greensboro cross, for example, this necessitates going to the F2 to secure the full benefit of the factor for earliness carried by the Greensboro. In this particular cross there is also another reason for going to the F2, which will be evident a little later.

Elberta x Arp, in particular, appears to be a promising cross. Of 29 trees fruited, 16 bore quite desirable types of fruit, very handsome in coloring and general appearance. One ripening

about ten days earlier than Elberta is quite promising (No. 160110).

Returning to the Elberta x Greensboro cross, it is interesting to note that the F1 trees, 15 in number, all bore white flesh fruit. Of various crosses in which we have used a white flesh peach as one of the parents, we have fruited thirty-six trees, and all were white flesh. This, and other observations to be noted, lead one to question the supposed origin of the Elberta variety. The pit from which the original Elberta grew came from a Chinese cling (white flesh) tree close to which were growing Early Crawford, Late Crawford, Oldmixon Cling and Oldmixon Free. Early Crawford is the supposed pollen parent. If, as seems likely, yellow flesh is recessive to white then a white x yellow cross, Chinese Cling x Early Crawford, could not possibly give a yellow flesh seedling. Consider also that 97 per cent. of the Elberta seedlings that we have fruited are yellow flesh, though in this latter case only 21 trees, an insufficient number, have been fruited. However, selfed seedlings of eight other yellow flesh varieties for a total of 58 trees have been fruited and all were yellow flesh, indicating strongly that yellow flesh acts as a pure recessive. Four trees of Early Crawford selfed were all yellow flesh. Recessiveness of yellow flesh is further indicated by the fact that 73 trees, representing nine different yellow x yellow crosses, all bore yellow flesh fruit. Selfed seedlings of white varieties have given mixed populations for color.

It is equally significant that in over 2,200 open pollinated and selfed seedlings of Elberta there have been none with fruit resembling Early Crawford in any visible way, at least to the casual observation, and only three which were as early or earlier in season than the Early Crawford. The remainder re-

volve in season around the Elberta itself.

Finally, even assuming that white flesh is not dominant, how could it be explained that Elberta with a white flesh variety as one of its parents failed to give any white flesh seedlings where selfed? For the sake of argument I venture the opinion that Elberta is a natural selfed seedling of Chinese Cling, and a recessive yellow breeding true for that color.

Summing up our peach breeding work for a succession of Elbertas we have thus far, one seedling (No. 150369) ripening in St. John season; two (Nos. 174770 and 160110) ripening about midway between St. John and Elberta, and two ripening about a week to ten days after Elberta (Nos. 173527 and 173528). These are all Elberta type peaches, equal to Elberta in all respects so far as present limited observations go, varying only in season, and being of higher quality. Some have fruited only one season, some two, yet we are already propagating. Our purpose is to give the trees one more years' test, discard or hold for further test, together with the nursery stock, those which do not measure up in this further test, but distribute for immediate trial those which continue to look promising. In the final analysis it is the commercial test which counts, and we want that test at the earliest possible date. In apples, Macoun has estimated that a period of forty years is required to originate, test, propagate and popularize a new variety. Figuring on the same basis, a variety of peach would require perhaps 30 years. We hope, by lopping off a year here and there, and by the fact of being in the heart of a fruit district, to cut the time to twenty years in peaches, and other fruits in proportion. In early peaches, for example, we can select and propagate the

same season, since fruiting season is on or over before the budding season.

GRAPE BREEDING

As previously noted, the chief objective here has been the production of a variety or varieties having the carrying, storage and dessert qualities of the best of the Rogers hybrids, together with productiveness or in other words, self-fertility. Lest anyone should become needlessly excited, let me say that this objective has not yet been realized, though we hope that somewhere in the hybrids now growing, the happy combination will be found. However, the work to date has not been without its value and there are therefore included in this paper a few observations which may prove of interest to other grape breeders.

The bulk of the grape work has been concentrated in a block of approximately 21,037 vines, of which 1,646 are open pollinated seedlings, 3,711 selfed seedlings and 15,680 hybrids with both parents known. The open pollinated seedlings represent eleven parent varieties, the selfed seedlings 28 varieties and the hybrids 64 different combinations with one of the Rogers hybrids the usual female parent, though Brighton, Campbell, Concord, Niagara and Worden have also been extensively so used.

Approximately half of these vines were destroyed in 1921, before reaching bearing age, because of constitutional weakness of one kind or another. In 1922 the majority of the remaining vines fruited and were severely culled on fruiting characters, so that of the original 21,037 only 1,804 now remain. This includes approximately 900 vines which have not fruited. It is significant that in culling down to this number 90.5 per cent. of the open pollinated seedlings have been destroyed, the same percentage of the hybride and 95.5

per cent. of the selfed material. Also in the selfed vines many were left, not because of merit but more for study and further breeding.

As in the case of peaches, this may appear to you as being rather severe selection while the vines are still young and fruiting characters perhaps not permanent in quality of berry, size of bunch, etc. Undoubtedly these and other characters are often modified to some extent in succeeding years. However, we feel that by working in original large numbers, we can cull severely and still have left a very considerable number of plants containing the best of that particular parentage. Then, too, if we did not cull severely, we would have to practice wider planting with consequent increased land area, or decreased numbers of plants. Peaches and most tree fruits are planted 7 feet x 10 feet. Grapes are planted 2 feet apart in rows 4 feet apart, so that the block of 20,000 vines occupies less than six acres.

Niagara and Vergennes selfed gave particularly weak progeny, only an occasional vine out of hundreds growing strongly enough to be trained to a low wire. Other varieties selfed, while showing more vigor in the progeny than the above, yet were distinctly weaker as a whole than hybrid populations. Of 49 Concord selfed for example, none were worth retaining, being generally inferior to the parent. The same was true of Worden. Agawam, Campbell, Lucille, McPike, Moore and a few other lesser known varieties were somewhat better, from 2 to 5 per cent. being retained.

In the crossing work, three varieties have shown up particularly well as parents. These are Agawam, Campbell and Brighton. Two others of somewhat lesser value are Diamond and Winchell. Agawam x Niagara is a pro-

mising cross, though as previously noted Niagara selfed is useless. Concord and Worden selfed were superior to Niagara, yet when crossed with Agawam, they proved distinctly inferior to Niagara as pollen parents. Brighton x Campbell, Concord and Worden proved promising in all three cases. Campbell generally, whether used as male or female parent, is promising, imparting size of berry, size of bunch, quality and general desirability to a surprisingly high percentage of its progeny.

In conclusion, our breeding work at Vineland is concerned primarily with

the production of new varieties of merit. We find it comparatively easy to produce varieties "just as good" as existing varieties, but somewhat more difficult to obtain real improvement. Genetic studies with us are necessarily secondary, except in so far as the observation of gross characters may simplify future breeding. Time and funds unfortunately do not permit of any worthwhile genetic work. We are, therefore, reduced to simply crossing those varieties which seem to possess the characters desired, hoping for the best in the progeny.

Thirty Years Ago

BY A STUDENT OF 1892-1893

IN THE fall of 1892, as a member of one of the two divisions of First and Second Year Students which alternated between work and study, I was detailed to assist Prof. Panton, then Professor of Biology, at some work which he required done in the new laboratory, which had just been completed for class work and lectures at the opening of the fall term. While engaged with some of the several duties which fell to my lot, two visitors to the College were being shown the several details of the laboratory, and in my hearing one of them remarked that he had been a student at the College fifteen years previously. To this freshman he seemed an old-timer. If such was my impression, I presume I may be judged as antiquated, in appearing as one able to head a reminiscent screed as this one is. But whatever impression is left as to this fact, may I say that interest in the old institution on the heights is not lessened through the passing of years.

Thirty years ago, in so far as the O. A. C. was concerned, nearly marked the beginnings of her popularity and effectiveness. To become a student at that time and for three or four years previous thereto, did not require the same measure of courage as was required in earlier years. Affiliation with the University of Toronto, and establishing of the three-year-course leading to the degree of B. S. A., had the effect of adding prestige to the work of the Institution. The organization of the Farmers' Institutes was a bold and well-conceived effort, not only to lead the farmers to see what might be obtained by interchange of opinion on agricultural subjects, but to bring the College into direct touch with the farms of Ontario, enabling their owners to ascertain what information was being imparted to the young men who attended College. So, in planning the tours of the Province, Dr. Mills, who had charge of the work of organization of the dele-

gations, saw that each of these included either a member of the College staff or a graduate, who made it part of his business to overcome some of the misconceptions which had crept into the public mind regarding the Institution. For lack of any well-defined policy regarding encouragement of Agriculture, the Opposition in the Legislature lost no opportunity to attack the College, to belittle its work, to charge it with being part of the machinery by which the Government sought to retain office. The fact seemed to be lost sight of that the farm was part of an Educational Institution and though sometimes some impractical things were practised and published, yet many useful lessons were being disseminated, and indirectly the

wealth of Ontario in that time. It might also be noted here that the demand for the work of the Farmers' Institute work became so great that it became a factor in Agricultural Education in Ontario, and for a number of years exercised a splendid influence on farm life. Dr. Mills found it necessary to relinquish the organization work, voluntarily assumed by him and well established, to a special branch of the Department of Agriculture.

In 1892 a new undertaking was launched in the travelling dairy. An observant student at the College, who saw the possibilities of improvement in the dairy industry, through seeking a more uniform quality of dairy butter from the farms, suggested the idea and



Years Ago

Province receiving much benefit. Securing votes for equipment, and salaries from the Legislature was not easy work and I have a distinct recollection of the newspaper account of Hon. John Dryden's pleading with the Legislature for a \$300 increase in the salary of Dr. Zavitz as Experimentalist that his services might not be lost to the United States.

Who would be able to measure the extent of the loss resulting from the failure to obtain that increase, in the agriculture of Ontario over a period of thirty years, or who could charge to-day that the farm did not pay, and consider for a moment what the experimental work of the farm has added to the

it was readily taken up, passed on to the proper authorities and votes were obtained by which two outfits, consisting of a team of horses, spring wagon, butter-making outfit, a butter maker and a lecturer toured Ontario, one east and one west, during the whole season. The work was continued during two subsequent seasons on a more limited scale. The itinerary was arranged from Guelph and for some days in advance of the arrival of the dairy in any place, a quantity of churning cream, provided under conditions outlined in a circular giving directions, was furnished, and while the lecturer talked on dairying and particularly on buttermaking, the practical side of the work was demon

strated. The reception throughout the Province to the plan was all that could be desired—Ontario was face to face with serious agricultural problems. The McKinley tariff had closed the American market to Canadian products. The British Government was threatening exclusion of our live cattle from her markets, and did so, provided by the embargo of that year. The British bacon market was not a very serious consideration as yet, for the effort to produce a bacon type of hog was in its infancy. The hope of Ontario, therefore, lay in dairying and we can understand why a movement to improve the quality and increase the quantity of dairy products would be popular. So, following the institution of the travelling dairy, to take better methods of butter-making to the farms, the beginning of 1893 saw the opening of the first special Dairy Course at the O. A. C. The results exceeded the most sanguine expectations of the Minister and Dr. Mills. These were seen not only in the attendance, but in the adoption of new methods. The work of special instruction in cheese-making was under Mr. A. T. Bell, of Tavistock, a capable cheesemaker.

I remember Hon. Thos. Ballantyne, Speaker of the Legislature at that time, and a very prominent cheese manufacturer, stating in an address regarding the work done that there had been demonstrated the possibility, through that work, of extending the cheese-making seasons into the colder months of the year, something not thought practicable until then, thus utilizing for cheese-making purposes large quantities of milk, which if made into butter, would have served to glut a limited market, for the creamery organization of Ontario was in its infancy at the time. If my memory is correct, in its records I think G. C. Publow and L. A.

Zerfelt, prominent Eastern Ontario dairy manufacturers to-day, were members of the first special Dairy Class, as also Mrs. Stephen (nee Miss Laura Rose), of national fame in Women's Institute as well as special dairy work.

Reference to some of the farm conditions and layout of that time may be of interest. The field on the south side was the one used for experimental work by Dr. Zavitz. In the fall of 1892 the slope of the hill in the present experimental field was occupied by a vineyard, evidently of an experimental character, for it seemed as if every known grape, produced in Ontario was grown there and many others—with what success I cannot say, for that same fall the vineyard was uprooted, the field cleared, tilled and tiled, and in the spring of 1893 set apart for experimental plots. Considerable experimentation was also being carried on in fattening lambs on rape for the British market. A considerable area of the farm was, each year for two or three years, sown to fall rye, which was harvested early next season and used as fodder, and followed by rape sown in drills. The fields devoted to this crop in 1892 had the appearance of fields of mustard for the seed supplied that year was, through some mistake or fraud, of an annual rather than the biannual variety usually sown. The quantity of pasture supplied was also much less than previously provided by the crop. One of my recollections of the crops is that of a splendid field of alfalfa grown on the back of the farm. The crop was comparatively new to Ontario at the time and owing to the fibrous nature of the hay because of too late cutting, the crop referred to was discarded by the Farm Superintendent shortly after this time, and the field utilized for other purposes.

The farm managed to sustain a splendid diversity of breeds of live stock

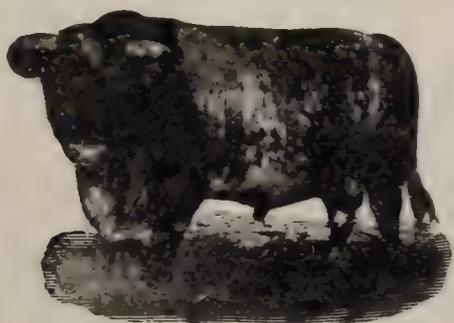
for illustrative purposes. Four breeds of dairy cattle, six or eight of beef cattle, nine or ten breeds of sheep, and three or four of swine were kept. Besides these, others were bought and fed on various rations for experimental purposes.

An interesting feature of the month of June in each year at that time and for several years afterward, was the series of excursions, very largely patronized by farmers from various parts of the Province. Some came in the spirit of criticism, for no Provincial election campaign was incomplete which did not thoroughly expose all the weaknesses of the "Model Farm". Others were just as heartily sympathetic and the student body of succeeding years was largely augmented from the farms of Ontario because of the opportunity given by these excursions to bring the Institution into the knowledge of the farmers of the Province. It may also be of interest to recall at this time, when the Teachers' Course in Agriculture has become a regularly organized part of the work, that a teachers' course was held in the holiday months of 1893, and while only experimental in its character, was largely attended and much appreciated.

Space will not permit further reference to these incidental historical features of thirty years ago, but the personal element of the class room may be an interesting introduction. It is not

possible to recall the names of many who answered the roll call each day at lectures. Some are pursuing the "even tenor of their way," and in quiet and humble walks of life adding to the world's wealth in more ways than one; while others are reflecting more noticeable lustre in their relations to the agricultural and political life of the North American continent. Two members of the classes gave their lives for the Empire in the South African War. Col. John McCrae, who achieved world-wide fame as physician, soldier and author, was Assistant Resident Master and Teacher of English. Geo. E. Day and Prof. R. Harcourt, known to all students since then, were members of the graduating class. Their associates, Shaw and Soule, have attained distinction on the other side of the boundary, as have J. J. Ferguson and James Atkinson, of the graduates of 1894.

Hon. W. M. Doherty, who has the whole Agricultural Department of Ontario under his supervision, was a member of the First Year Class, as were Wm. E. Elliott, M.P. for South Waterloo, and T. E. Ross, M.P., of North Simcoe. From memory, it is not easy to call the roll after thirty years, but time has not yet revealed the fact that any has reflected much discredit on the institution where many interesting days were spent and to which all can look back with no inconsiderable degree of pleasure.



Naming Pure-Bred Animals

BY R. KINCHSULAR, '23

THIRD PRIZE TECHNICAL ARTICLE

WHY are the individuals of the various breeds of live stock, especially horses and cattle, named? Why not use numbers in order to distinguish each animal? To those who are casually interested in pure-bred animals, numbering would appear quite feasible, but to the dyed-in-the-wool breeder, it would be an outrage, as it would rob him of one of the most interesting features of his life-work, that of composing names for his animals, descriptive of their breeding or parentage.

Breeders employ a variety of methods in naming their animals. Some combine the names of the sire and of the dam to form that of the progeny; others—especially Shorthorn breeders—use the name of the dam exclusively, building up a long line or family of females all of the same name; while there are breeders who gain world-wide renown by prefixing the names of their farm to that of the animal registered.

Each method has its advantages. If both the sire and the dam of an animal are show yard winners of repute, their names combined, when given to their offspring, will give the young stock a great deal of prestige. The name will immediately disclose the breeding of the animal on both sides, and it will attract attention, where an equally well-bred animal, promiscuously named, will receive but a passing glance. This method simplifies the tracing of pedigrees, as a breeder who is familiar with live stock nomenclature can recognize the breeding of the animal on reading its name.

The second method is fashionable in Shorthorn and Aberdeen-Angus herds,

where it is the object of breeders to establish families of females bearing a similar name through many generations. This promotes stability and all of the members of the family, whether good, bad or indifferent, gain renown from the winnings and fame of some of the outstanding individuals of their number. This is especially noticeable at live stock sales, where animals quite often bring prices beyond their value because they bear the name of and show blood relationship to a show yard champion or an exceptional breeding animal.

The third method is very popular among all breeders of live stock. Personal renown appeals to the majority of us, and in the live stock industry this is most quickly acquired by prefixing the name of the farm to the name of all animals reared upon it. Seldom are two farms, breeding the same class of animals, named alike, consequently the dangers of one breeder usurping the rights of another are minimized. Collynic, Uppermill, Bapton Manor, Dunure Mains, Craigie Mains, Bargaenock, Maxwalton, Glencarnock and Brampton are names of farms which stand out like polar stars and are known to all the live stock fraternity.

A review of the nomenclature of the animals of some of our leading breeds of horses and of cattle would illustrate the methods used.

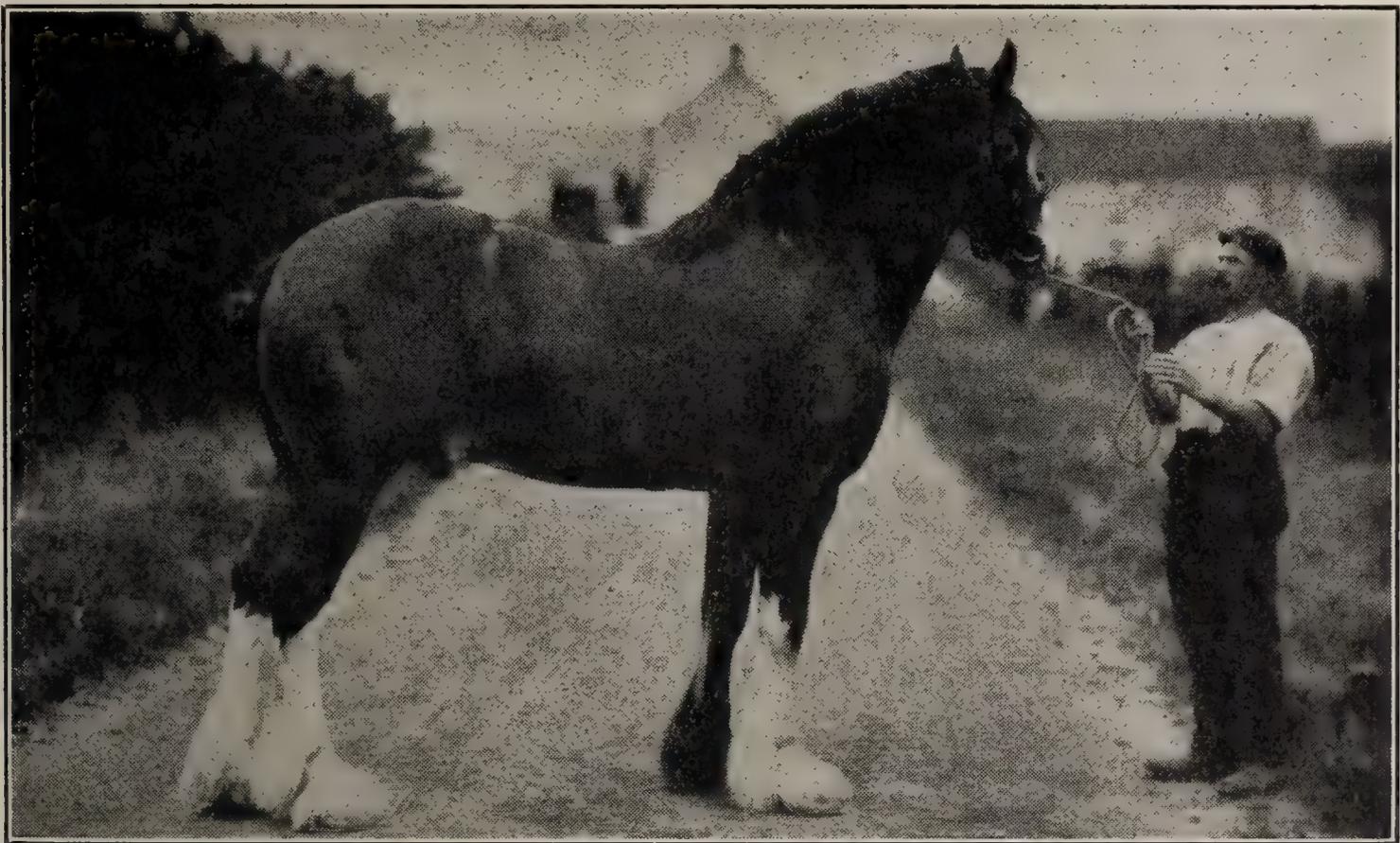
A. & W. Montgomery, the noted Clydesdale breeders of Kirkcudbright, Scotland, gained their fame largely through that wonderful sire Baron's Pride. Many of his sons were named after him, that is, they carried the word "Baron" in their name, Baron Buch-

lyvie, Royal Baron, Baron Kelvin, Baron Sterling, and Baron Bobs were prize-winning sons of his; and that name "Baron" made Montgomery's famous in the Clydesdale world—so much so, that they appealed to the Clydesdale Society of Scotland to prevent other breeders from using it when naming their horses.

Wm. Dunlop, of Dunure Mains, Ayr, Scotland, names his horses after his estate, which has become world-known through Dunure Footprint, his dam Dunure Ideal, Dunure Independence, Dunure Refiner and Dunure Key-

Bonnie Baroness, by Bonnie Flisk and Baroness Lucillia; and Rose Fragrance, by Rose Crown and Lily Fragrance.

To give a colt of high breeding a common garden variety name is like saying "Hello Mac!" to the Prince of Wales upon meeting him. A colt sired by Baron o' Kyle, a grandson of Baron's Pride and from a Hiawatha dam was named "Sporting Boy," a name which was more fitting in the Police Gazette than in the Breeders' Gazette. He was an exceptionally good colt and a buyer calling at the farm looked him over. He became impressed with the appear-



Baron of Buchlyvie

note. Graham Bros., of Claremont, Ont., used the name "MacQueen" in the names of several colts and fillies sired by the good stallion of that name, which they owned several years ago and the name was, and is yet, an indicator of good breeding among Canadian Clydesdales. Some samples of the combination of the sire's and the dam's name in that of the progeny are found in the following animals: Bonnie Flisk, sired by Bonnie Buchlyvie, dam Maggie of Fliskwillan; Heather Princess, by Prince Palatine and Heather Belle;

ance of the colt, but as the men were away he could not ascertain his breeding. However, the little son of the owner furnished him with the name of the colt in question. When the buyer heard the nondescript name, he lost interest and went on his way. A good sale was lost through the foolish choice of a name.

Perhaps in no breed of live stock are the individuals as well named as in Shorthorn cattle. All methods of forming names are used and all to good effect. Wm. Duthie, of Collynic,

Tarves, Scotland, uses the farm name, Collynic, in the registering of nearly all of his cattle and the name in itself is synonymous of Duthic breeding. Maxwalton is the prefix used by Carpenter and Ross, of Ohio; Clover Leaf, by Rosenberger & Son; and Anoka by F. W. Harding, of Wisconsin. Maxwalton Renown, Maxwalton Monarch, Clover Leaf Royal and Anoka Sultan are samples of names which have brought fame to these breeders.

Mr. Watt, of Elora, Ont., has used the word "Gainford" (from his herd sire, Gainford Marquis) to good advantage. Such animals as Gainford Perfection, Gainford Monarch, Gainford Matchless, Gainford Madge, and others similarly named, have made the name a symbol of supremacy throughout the American Shorthorn world. The word "Sultan" in a shorthorn animal's pedigree at once reminds us of Whitehall Sultan, the greatest American Shorthorn sire of all time and brings to mind the illimitable list of high-class animals bearing that name. Another name which has sprung into prominence is "Browndale," Jas. Douglas & Son's late herd sire. Browndale Banner, Browndale Hero, Browndale Count and Browndale Monarch, champions all, have put that name in the halls of fame to stay, and any animal bearing the name is looked upon with favor.

The combination method is used with good results among Shorthorn men. Dale Blossom has for sire Browndale and for dam Morning Blossom, 2nd; Golden Sultan is by Sultan's choice, and Golden Drop C; Butterfly King is by Rothes King 4th and Butterfly Peg; Fancy Gift by New Year's Gift and Roan Fancy; and Augusta Champion is by Newton Grand Champion and College Augusta.

It is often observed in sale catalogues that a female bearing an Augusta, a

Lavender or a Roan Lady pedigree, has an unbroken line of those names on her dam's side for perhaps a dozen generations back. Some enterprising young breeder buys her and because he is infatuated with a young lady by the name of Alice, will name the first of her female progeny Charming Alice, and the next one, Alice in Wonderland, thereby breaking a long line of names which has taken years to construct. It will be a case of "Alice, where art thou?" when he offers the young stock for sale.

When it comes to using brains in compounding names for animals, the owners of thoroughbred horses have it all over other breeders like the proverbial circus tent. The great breeding stallion Havoc, owned by Mr. Seagram, and the mare Bon Ino produced a colt which was named Inferno. When mated with the mare Martyrdom, the following names were given three colts—Slaughter, Seismic and Smithfield. What could be more suggestively subtle? Torn Silk and Rustle are the names of fillies from Havoc and the mare Frou Frou; Donnybrook is a colt from Havoc and Irish Lass; Fallen Angel, a filly from Inferno and Starlight; Mandarin, a colt from Havoc and Royal China; and Parisian Diamond is by Louvois and Gem Gem.

Mr. Hendry, of Hamilton, has a colt, Shoulder Arms, who has for dam Shimonese (a Japanese explosive), whose dam in turn was named Lyddite. Beehive, a King's Plate winner, is from Basseton and has for dam My Honey. Mr. Dyment, of Barrie, has a colt Moss Fox, and a filly Fox Glove, sired by the stallion Red Fox and from the mare Solid Comfort, but without doubt the most appropriate name in the history of race horses was given to a filly a few years ago. It was none other than Fox Trot, a daughter of Red Fox and New Dance.

Dreams Of A Chessman

Purely Imaginary

BY R. O. BROOKE, '24

HAVE you ever watched a game of chess? You have. What do you think of it? Somniferous! So do I. Shake!

You enter so-and-so's room. There they are playing chess, staring inanely at the board, heads on hands, lines of anxiety wrinkling their thought-weary faces.

Now one slides a pawn surreptitiously on to another square, pretending not to look at it; now his opponent rattles his queen on the board in an attempt to distract attention from some plan, which is slowly materializing in the hazy beyond, say thirteen moves ahead.

Makes one tired to see 'em. However, I usually light my pipe and join the idle onlookers who are in various stages of drowsiness. Every now and then one will fall over backwards and go to sleep on the floor.

Makes one think of some opium den, especially in a dimly lit room with thick waves of tobacco smoke undulating from corner to corner.

While I brood over such a game my semi-conscious brain wanders and memory draws pictures in my mind.

We were leaving the ground. In a few seconds we had swerved up into the air. The roar of the engines was lost in space behind us, as the machine climbed up and up until, all noise forgotten, we floated away above this mortal coil, alone in the infinite.

The air was warm, the sky was blue with a hint of purple in the West. To the East of us far, far below, the sea glittered as the swell rippled to the shore, sending up to us that hushed roar one associates always with the ocean.

Away from the sea the land lay chequered in beautiful harvest time colors, and down in the bronze green hayfields by the river, a hay wain, a mere speck at that distance, moved slowly towards the road.

There lay the town of Dover, with its squalid quarters and its busy streets its filthy slums and gorgeous churches, its repulsive dock-sides and its glorious harbour alive with toy-like ships of war.

A clumsy-looking monitor was creeping out to sea to continue the work of bloodshed and destruction, which was wrecking the future of Europe.

But we floated above all this. Peace and war, earth and sea were so far below us as to seem unreal on that lovely midsummer evening. We seemed to be shimming without effort in limitless space, freer than the wind, lighter than air.

Bump—an intense silence made itself felt. The engines had stopped, the propeller swung slower and slower, the machine dipped towards the earth, we hang like a piece of cardboard flicked into the air, then down, down, down, over and over. Too dazed to think, for the whole universe was whirling giddily around me, I realized that the machine was out of control and was falling, falling, falling. I gripped the sides, gritted my teeth and shut my eyes. My imagination ran riot. In anticipation I felt the splintering crash as we hit the ground and saw the burst of flames.

Oh! agony of agonies, to be burnt alive!

A spluttering roar from the propellor brought me back to consciousness. The machine righted unsteadily and

fitting for a moment above the ground, we landed as smoothly as we had risen.

"Rather a close shave," said the pilot casually, as we clambered stiffly to the ground.

Check!

One of the idle lookers-on woke up with a start, but the game went on more drowsily than ever.

My first visit to a Catholic Church came vividly to my mind.

I was following my friend up the aisle of one of the finest churches I have ever seen. The pillars towered up and up until they blended in the glories of the vaulted roof.

I got an impression of solidity and beauty combined, marble slabs and stained glass windows, images and incense, glimpses of tiny chapels and monumental tombs from between the pillars and more wonderful than all, the altar, an impressive mass of candles, gilt and elegant stone carving.

I was so absorbed in the old-fashioned beauty of the church that when my friend kneeled I nearly shot over him on to my head. Following his example

I regained my knees with as much dignity as possible, and remained on them for the rest of the service.

Now and then I caught sight of the priest attired in rich robes, who looked very much like the priest of Orius, sacrificing in an old-world temple.

Incense began to fill the church, the music of the organ and the pleasant chanting of the choir echoed along the walls as though from a great way off.

The priest muttered prayer after prayer, starting in a loud distinct intonation and trailing off into the unintelligible. The roar of the people as they responded in the same tone of voice was flung from pillar to pillar, and as the service proceeded, the atmosphere grew tense and tenser until the priest raised the cross from the altar and the cadence of the three bells rang thrillingly down the aisle.

An awed tremor ran over the worshippers as they bowed their heads. For a moment one almost felt the presence of the supernatural.

Checkmate! The sleepers yawned, regained their hold on reality and one by one went off for the night.

Traditional Farming In India

BY S. R. FELKER, '24.

OUR Fathers have done it so we do it," is the only answer the average Indian farmer will volunteer when asked why some of the apparently crude methods of agriculture are still followed. "Dastur" or custom is a tradition which has ennobled the Indian civilization in some respects, but it is proving harmful to many of its adherents. Many of these customs have had some foundation for their being built up, but it is often lost

sight of and the modern agriculturist of Canada cannot understand why they still persist.

In order to appreciate their farming methods we must remember that the Indian people are very numerous. Over thirty times the population of Canada live in about one third the area. The majority of these are farmers. This, in itself, is a hindrance to economic prosperity in agriculture.

On account of the laws of inheritance,

the holdings are divided very accurately, as to size and advantageous situation, among the heirs. Consequently, after a few generations they have become very small—smaller than the smallest fruit farms in the Niagara District. Like those peoples of olden Europe they are forced to use their dwellings for stabling their animals in inclement weather.

According to Mr. Sam Higginbottom, the average income per capita is three cents per day. This includes the wealthy merchants and rulers' incomes. It will readily be seen that with this poverty, only the crudest of implements can be purchased. Consequently the most laborious methods are practised to-day.

The motive power of the Indian farm varies from the small, underfed, emaciated bullock to the huge, black, ugly water buffalo. The preference of poverty is usually to the former and the labors which it is supposed to accomplish must be shaved down to its ability. Two of these are yoked together, and with the exception of a nose-ring to which a rein is attached, no other harness is used. Even this rein is dispensed with when ploughing, and a long thin bamboo goad is used instead.

The oxen are yoked to the tongue of the plough which is none other than a tough crooked root which has been shaped somewhat like the letter "L."

The upright is used as a handle and the horizontal part is sharpened and shod lightly with an iron point which acts as a share. The farmer touches up the bullocks with his goad and runs the point of the plough into the ground. Chunks of earth are broken up, but as there is no mould board on the plough they are not turned over. The oxen romp around the field in ever-increasing circles in a vain endeavor to evade the goad and so the ploughing is completed.

The lumps are partly broken up by means of a rude drag made of logs or limbs. The ground is then harrowed by means of wooden harrows and the soil is then ready for seeding. This is usually done by broadcasting by hand, although in some localities the fields are drilled in by attaching a large cup of soft wood from the bottom of which runs a hollow pipe. The bottom of the pipe is directly behind and at about the same level as the bottom of the plough. It is attached to the handle of the plough. The cup is filled with grain which passes down the tube and is seeded in between the lumps of earth. The other operations of dragging and harrowing follow this in their order.

During the ripening season, someone must continually watch the crops to prevent the parrots and animals from destroying the grain. The cereal crops are harvested by hand. The reapers use varying sizes of sickles and squat on their heels as they manipulate them. The grain is tied into small bundles, which are carried to the dwelling and stored until the whole crop is harvested.

When the crop has been garnered, the farmer prepares for threshing. Some flail the grain on a smooth dry "floor," but more often it is trodden out by bullocks. The threshing floor is selected, levelled, smoothed over with a mud-plaster and a stake planted in the middle of it. Over this stake a noose end of a rope is slipped. At intervals along this rope are other large nooses for securing the bullocks abreast from the central stake. The grain is thrown on the floor and the bullocks are started round. They keep on going round and round while, periodically, fresh grain is thrown on to the floor. The straw is forked off with rude forks made from tree limbs.

The grain and chaff are gathered up into baskets and carried to the houses.

Here the people store it until a windy day, when it is cleaned or separated. A basket of somewhat similar shape to a hooded dust-pan is partially filled with grain and chaff. This is dexterously thrown into the air, where the wind blows away the chaff and light grain. The good plump grain is expertly caught in the basket and placed in a storage vessel of earthenware. These vessels are sometimes six feet in height and four or five feet across.

The straw is stored in pits in the ground as we would store roots. It is used for fodder. It is claimed that the treading of the oxen softens the straw and makes it more palatable to the animals. It is usually cut up into small lengths before feeding.

Most of the arable land of India has to be irrigated. This is accomplished in three ways: (1) From wells by means of a mechanical lifting contrivance called a "Persian wheel," which is built on the principle of our bucket pump. The water is lifted by buffalo power; (2) From irrigation canals; (3) From lakes or rivers by means of water lift.

It is quite a mistake to believe that the native cultivators do not practise crop rotation. A great variety of rotations are commonly practised. Summer crops are sown in June and harvested in the autumn, and winter crops are sown in the autumn and reaped in the early spring.



Looking Forward

Elimination Of Low Quality Varieties

BY R. R. BURROWS, '23

WHEN the first fruit trees were planted in Ontario probably one hundred and fifty to two hundred years ago, little was it deemed then by the rough, care-free settlers that the wild, rugged and uncultivated stretch of land upon which they were settling and clearing, would some day be looked upon not only by the neighboring Provinces, but by the whole world as one of the greatest fruit-growing Provinces in the Dominion.

In the primitive days of Ontario, when the country was in a wild state, roads were bad and communication very poor, the average settler was more or less isolated and ignored by his neighbors until such roads were opened up and railways built; however, look back as far as we may, we find this early settlers' clearing, bearing some kind of fruit trees of which he little knew nor cared about, as long as they bore fruit. In instances we read where the settler on leaving his little farm took along with his belongings his young fruit trees.

Was this not the beginning of the spread of fruit trees of all varieties throughout the Province? Was it not clearly demonstrated that the fruit trees could be successfully dug up and later transplanted without any marked injury or set-back to the tree? The result of these actions caused fruit-growing to become more general, and in 1859 we find out of those who had become more interested in the fruit-growing possibilities, an organization known as the Ontario Fruit Growers' Association. It was the purpose of

this Association to go through the country and hold meetings at which the settlers were urged to plant more fruit trees. This organization was the basis of all other associations—by its meetings and reports, has brought about the present marvelous development in the fruit industry of Ontario.

Realizing that more must be done to guide the fruit growers in the planting of varieties and the culture of those fruits which were wanted, not only from an economic, but a commercial standpoint, the Association urged upon the Government the importance of establishing Fruit Experiment Stations throughout the Province. The idea readily received the approval of the Government and in 1894, four such stations were established, this number being increased until at the present time we have fifteen similar stations.

With the advance of Science and teaching within the past few years do we find any great marked change in the interests of the fruit industry to get rid of those varieties which are practically useless from a commercial standpoint, and supplement them with better ones? At the present time we have too many of these useless, non-productive varieties on our farms.

To the person interested in fruit and its development, a trip through the Niagara Peninsula will readily reveal to him the thousands of acres planted with trees bearing varieties which are of little or no account to the market. Thousands of trees bear fruit which is never picked, chiefly because the fruit lacks flavor, soundness, shipping and keeping qualities.

The fruit market, like all others, is open to only the best, and the time has come when the buyer wants only the best, and for which he will pay the price. Therefore, in order to supply the buyers' demands on our home and foreign markets we must offer him the best, and unless we cultivate only those varieties which are required and get rid of all those which are of no value, we can never expect to rank foremost in the fruit industry.

In our fruit-growing districts we are growing too many varieties of each kind of fruit. Of course, the problem naturally arises: Would a limited number of varieties of particular sorts be sufficient to supply the demands of the market? During the past season many inferior and undesirable varieties of fruits glutted the market; especially true is it in the case of plums which was one of the largest crops in the history of the Province. A sad feature of this particular fruit is the fact that some of the earliest and latest varieties are found chiefly among the low-quality varieties, with the result that they not only command the best prices but also deceive the consumers to such an extent that little or no place is given to the later varieties which are, without doubt, the best.

In the Niagara Peninsula, where the Niagara Peninsula Growers' Limited have been operating with marked success to further the development of co-operative marketing, a peculiar situation confronted the Company this season. The earlier crops, such as the asparagus, strawberry, raspberry, gooseberry, black currant, and cherry, were handled very successfully to the advantage of all growers, by the Company,

which disposes of all fruits and vegetables grown by its members. However, when the plum crop matured, it was necessary for the Company to market the earlier low-quality varieties, until the better varieties matured. Here the Company faced a serious problem, as the normal market was well supplied with the earlier varieties and the demand so weakened that there was little or no sale for the later and, as stated before, better types of plums.

Just at this juncture the fruit-grower who was affected must realize the folly of keeping these poor, low-quality varieties. No doubt, many of the growers will throw the blame on the Co-operative Company for failure to mark their fruit. This, I say, would be an injustice, because even though it has cost the Company considerable, the situation has brought to light, directly for the growers' interests, the great need for only the very best varieties of fruit, in order to carry on a successful co-operative marketing program. Henceforth, the Niagara Peninsula Growers' Limited will be, more or less, in a position to state what varieties should be encouraged and give a brief estimate of the marketing possibilities for these crops. Mr. Grower, such instances are not blows at co-operation, but permanent strides towards co-operative development and views into the critical situation which now exists without whole-hearted co-operation.

If we want to put Ontario in a foremost fruit-producing place, we must follow the methods adopted by other departments of agriculture; that is, get rid of the "scrubs" and plant and cultivate on our farms, only the very best high-qualified varieties.

Ventilation of the Barn

BY A. D. HEMBER, '24

PHYSICS has done much to effect better ventilation in our farm buildings. It has placed before us the underlying principles and now comes the task of convincing the farmer that the results of long experiments in this work are for his benefit.

Text books do not interest him much because he is a practical man, so that men from the Agricultural College must see that he realizes just how much the health of his stock depends on efficient ventilation and sanitation.

The subject may be discussed under two headings: (1) Ventilation Systems; (2) Heat Loss, due to improper methods of ventilation.

As far as a ventilation system is concerned, the one which costs the least and needs the least attention is the one the farmer leans toward. One of the simplest types is the one used in the beef barn at this College, which allows fresh air to enter near the floor through iron gratings (not directly on the cattle). Foul air is taken off at the ceiling through flues to the roof. Animal heat causes the air to rise and enter the flues and suction, caused by air currents passing the roof ventilator, draws the foul air up and out. In this way a complete circulation of air results. This system—the "Rutherford"—is simple and works efficiently.

Another system is the King, in which fresh air enters at the ceiling and is deflected over the heads of the stock. Foul air is taken off through flues at the floor and the ceiling.

Where flues are put up through the roof, it is well to remember that they must be high enough to reach the air currents flowing parallel with the ground. When air strikes a building,

some is deflected down, depending on the height of the building. A system of sufficient size should be installed to meet the demand of the number of cattle. Enough attention is not paid to this factor, resulting in stuffy and foul stables.

There are three forces which keep a continuous circulation of air, e.g.: (1) Waste heat of stock, causing air to expand; (2) Mechanical action of chest of stock in breathing; (3) Loss of heat by conduction through the walls.

Dealing with this last point as the second heading, it might be well to state an experiment as an illustration, which has been taken from the official magazine of the American Society of Agricultural Engineers. This Society have been conducting exhaustive experiments in Canada and the United States, along the line of Barn Ventilation and Sanitation.

They experimented with a barn 100 x 32 feet, containing 26 pure-bred Guernsey cows of about 800 pounds each, 22 heifers averaging 650 pounds each, 1 bull about 1,600 pounds, 9 small calves and 1 yearling.

External Heat produced:
 2,200 x 26 = 57,200 B. T. U.
 2,000 x 22 = 44,000 B. T. U.
 3,100 x 1 = 3,100 B. T. U.
 1,000 x 7 = 3,100 B. T. U.
 1,800 x 1 = 1,800 B. T. U.

Total, 113,000 B. T. U. Per Hour.

Heat Loss:
 Walls 860 sq. ft. (exposed
 to outside air) x .48 = 461
 Windows 111.5 sq. ft. x
 1.10 = 123

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THE O. A. C. REVIEW

ODELL

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EDITORIAL

Education in Living

LOOKING back over the past term one thing strikes us forcibly, that we really did little work connected with the academic side of our college-life by ourselves. Everything was carefully and thoughtfully arranged and planned for us.

Such a method is certainly the most efficient as far as lecturing is concerned. To know exactly what to do on each day for the whole term makes it much easier to complete a course and to give out the amount of information which seems so necessary. The lecturer knows

how much the student should know and examinations can be set and passed.

But will it develop in us the initiative which leads to the development of individuality and personality?, things which are rather hard to describe, although of the utmost importance to true development—the aim of education.

We are trying to develop men who are efficient in the business of making a living without giving them a chance to be efficient in living. The trend of our civilization has been to over-emphasize

the business of making a living. The idea, fundamental to being alive, has been allowed to run away with itself. That is why we have so many dyspeptic millionaires, so many dissatisfied and envious people, so many poverty-stricken and so few who really enjoy their lives. If the sole business of being in the world is to make a living, we might as well be cattle—they even have the pleasure of chewing their cud.

We realize that competition in securing work has been such that it requires often an intense degree of specialization. Yet professional, as well as working men, are demanding and getting shorter hours, until now only one-third of the day is taken up by work. Allowing another third for sleep, what is done with the remainder? That is the time we should enjoy being alive. Through the development of the intellectual side of our minds that enjoyment must come. Training fits us to make a living, education fits us to live.

One way in which to develop that faculty of enjoyment is in figuring things out for ourselves. That cannot come when everything is cut and dried for us. One of the greatest joys for a student is to discover things for himself, even if some scientists knew it long ago. It is then

that we realize what has been done and is being done by scientists.

The greatest fault with our timetables is that they are so filled with information-giving lectures that the student gets little time to think and work for himself. The accumulated knowledge of the world is so vast that it requires a mighty clear brain to sift it out and make use of it. It would be much better to develop clear thinkers than to try to make us like encyclopedias. Our minds were given us for the production of ideas, our memories for the storing of knowledge. Let us not develop one to the detriment of the other.

The outstanding purpose of the National Conference on Education and Citizenship held in Toronto, early in April, was to discuss the present neglect in the development of personality. The Council, in the words of its constitution, proposes to attain its object, "not by the centralization of authority and control, nor by uniformity of system and method, but by co-operation of effort toward a common ideal and by the evolution of a high national purpose."

We wonder if any students took part in this conference. That would be a real step in co-operation.

With Best Wishes

In the years which Kenny Forman has spent at the O. A. C. he has so won his place here that it is difficult to conceive of the College without him. First as student, and later as physical director, no man has had more interest or en-

thusiasm in building up college athletics and in fostering the spirit of true sportsmanship. In doing that he has accomplished more than merely turning out winning teams.

Yet apart from athletics, everyone



K. W. Forman

who has known Kenny personally has liked him for himself. We are not attempting to explain why, for we all know him.

To return to India, the land of his birth, as an agricultural missionary has been his ambition. On May 11, he will land in India to take charge of the dairy and herd of the Allahabad Agricultural Institute, which is under the supervision of Mr. Sam Higginbottom. Kenny is being sent out by the American Presbyterian Church. To follow such work is nearly traditional with the Forman family. Kenny's father, Dr. Forman, is in charge of a travelling dispensary at Landaur, India. His mother is also there while his brother is a doctor at Ewing Christian College at Allahabad.

Before sailing, Kenny will be married to Miss Eleanor Coray, of Scranton, Pennsylvania. They will carry with them the sincerest good wishes and interest of all O. A. C. graduates, students and members of the faculty.

Theatricals and the Student

Much has been said about the students' responsibility in preparing himself to take his place in the improvement of social life in the rural community, but let us see just what opportunity the College offers for the obtaining of experience that will enable him to fill this to the greatest extent. The Philharmonic Society has been carrying on this work in the past, largely through the Dra-

matic Club, which puts on one, or at most two plays a season, engaging the efforts of perhaps a dozen or possibly a score of students. Thus the experience in producing these is confined to twenty actors and two directors. Nothing livens up a community socially more than a few good amateur plays, and it should be possible for the majority of the students at the O. A. C. to become

familiar with the art of presenting these plays. In order to give this opportunity, the work of the Dramatic Club might be extended.

In doing this, it seems quite feasible to produce a short play at least once a month, directed by a new director and acted by a new cast, who would receive help and criticism when necessary from the executive of the Dramatic Club. In general they might be managed somewhat along the same line as was the French Play, which was so well received.

It will no doubt be raised in objection that this is too big a proposition and will only add to the already very large number of activities occupying the student's time, but much of the work ordinarily connected with the produc-

tion of plays can be avoided by spending little effort on settings or costume. Also, Massey Hall could be used instead of seating the gymnasium. There is no reason why such a plan as this should not take, particularly if no charge is made for admission. Plays without scenery have succeeded in the past, notably in the case of the Elizabethan drama, and also that of the Ben Greet players of our own day. Personally, we have seen very popular performances by High School pupils, with no other settings than the usual hangings of the stage.

Of course these small efforts would not in any way supplant the usual productions of the Club, but would rather serve as a training ground for both actors and staff in the main plays.

Our Matron

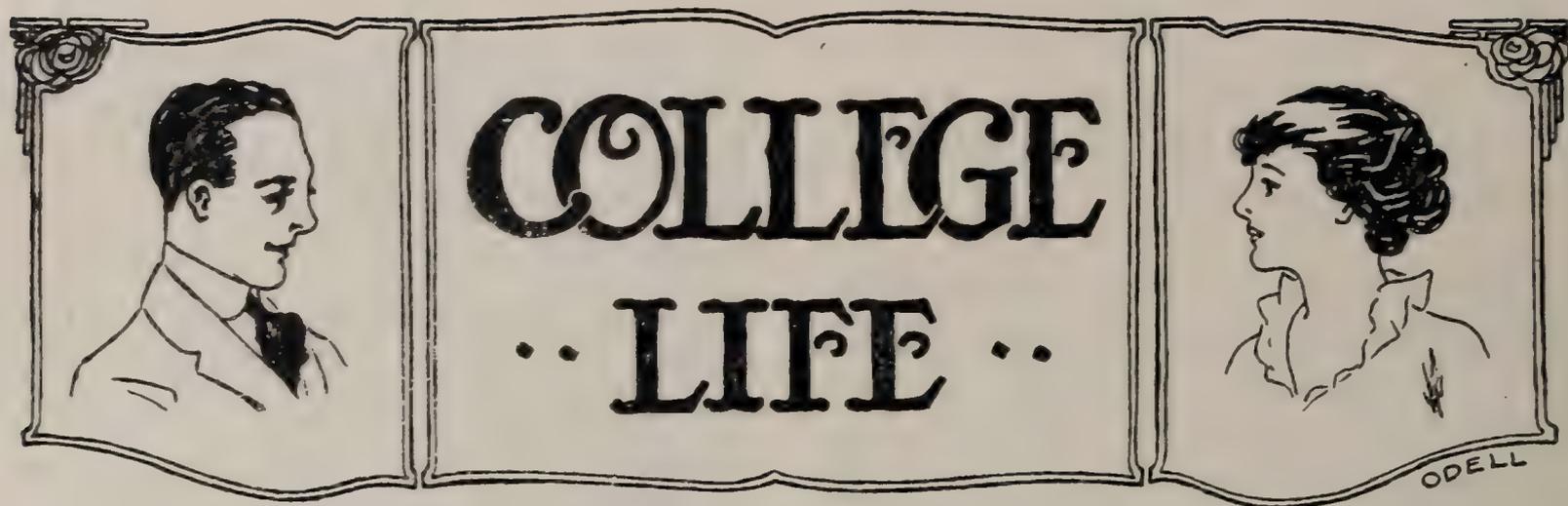
Living in residence may seem to lack many of the finer things we enjoy at home. Yet our life at college is given that home touch by our matron, Mrs. Galbraith. Each succeeding year at college we realize more and more how fortunate we are in having someone to look after us who have the care and well-being of the students so much at heart.

While the past winter brought with it many enjoyable and healthy out-door exercises, it is seldom that we have had so much sickness. The burden, and it was a heavy one, of attending over ninety sick men fell largely on Mrs.

Galbraith. To her we owe more than can be expressed, that all recovered so well. Every student in the College will join with us in showing our appreciation for the kind and thoughtful attention we were given, whether in the hospital or free from flu, measles, or "just indisposed."

Last year many complaints were sent in that students were not receiving the summer numbers of the REVIEW. To eliminate a repetition of such a misfortune we advise every member of the co-op. to make certain that his name is on the mailing list.





The Athletic Concert

THE evenings of March 9th and 10th saw the return of the Athletic Concert, which was in every way bigger and better than ever. During Friday forenoon a bridal party of Ethiopians from the College harangued the Guelphites, advising them to avail themselves of the opportunity of spending an evening of unadulterated pleasure at the College Gym.

Those who accepted the invitation enjoyed a programme surpassing the expectations of all. For the first time in the history of the College, a gym. team represented Mac Hall. The agility, gracefulness and strength displayed in pyramid formation by these members of the weaker (?) sex was a decided treat. The boys' gym. team added fresh laurels to their name by their work on the horse, parallel bars and mat.

Special demonstrations of tumbling and work on the high bar were given by Messrs. Keife, Parker, Adams, Blaney and Le Maistre. Many of the stunts were difficult, but the finish with which they were accomplished speaks volumes for the efficiency of the demonstrators.

The three fancy dances were a revelation of color and movement; presenting to the admiring audience something new and attractive. Need we mention that Miss M. Stoddard's Hawaiian dance was in a class by itself?

Fencing as a branch of athletics was given an auspicious introduction to the students by several bouts in which the need for skill and quickness was emphasized. Mr. Chas. Baker's "Impersonations," in which English, Irish, Scotch, Italian and Chinese were mimicked to perfection, kept the crowd convulsed with laughter. The recitation of some of Drummond's French habitant poems by Mr. Hurtubise lent a literary touch to the programme.

Possibly the illuminated club swinging by Mr. Keefe was one of the most enjoyable items on the programme—but with those who enjoy good music the College Quartette and College Orchestra would doubtless find favor.

"The Shadow Play" gave a vivid idea of the warm reception given to "boney" missionaries venturing among the man-eating inhabitants of the South Sea Islands.

The programme terminated with the Third Year Stunt, "Ill-Treated Il Trovatore"—a burlesque of the famous opera. The absurdity of the sketch made it highly amusing and served as a fitting climax to a very successful programme.

"Year by year,
We're glad to hear,
It's getting better and better!"



Athletic Concert Party

Where Elequence Reigns

The annual oratorical contest was held on February 23rd, in the Gymnasium. A special attraction was the presence of Dr. G. C. Creelman, who acted as judge. Dr. Creelman's class has the honor of having instituted the oratorical contest at this College and of having given the prizes for a number of years. Owing to the dispersal of the various members of the class, the contest was discontinued for a short time, but was renewed three years ago by the Union Literary Society. It was, therefore, most appropriate that one of the original founders of the contest should award the decision.

The winning oration, given by B. A. Ward, was on the topic: "Canada—The Interpreter." The speaker had his subject well in hand and spoke earnestly and convincingly. He showed the necessity of creating a better understanding of Great Britain in the United States, and emphasized Canada's place as an interpreter between the two great

Anglo-Saxon powers. W. L. Burke took second place with his oration, "The Four Challenges of Agriculture". Mr. Burke had some excellent ideas and his speech was admirably conceived and put together. There might possibly have been more fire and enthusiasm in his delivery. The winner of the third prize, A. G. Kirstine, had perhaps the truest oratorical style of any. Unfortunately, constant reference to notes largely destroyed the effectiveness of his speech. His subject was "The Mission of the Anglo-Saxon." Excellent speeches were also made by Messrs. Donaldson, Fleming and Lane.

In summing up, Dr. Creelman pointed out that, for oratory as distinct from public-speaking, delivery was particularly important, and suggested a slight change in the scale of points for judging. He emphasized the value of training in expression and complimented the Union Literary Society on the results of their work.

In the Name of St. Patrick

St. Patrick, as the Dean remarked, has been dead a long time. But dead Irishmen have a propensity for disturbing the peace.

The Seventeenth of March, 1923, dawned peacefully, however, and except for a good sprinkling of green ties and hair ribbons, it might have been any ordinary Saturday. But of course it wasn't. It was the seventeenth of March.

A day of infinite possibilities—impending battle was in the air.

The first clash came early in the day, when the Freshmen and Sophomores, in skirmishing order, fell upon each other. After a short conflict, however, initiated

by the thought that the Seniors were apparently ignoring St. Patrick's anniversary, they signed an armistice, joined forces, and marched on Mills Hall. A bold and unprecedented piece of strategy such as this was bound to have results. It did. "Mike," who was doing some scouting, lost no time in carrying the fiery cross to the Chemistry building where his auburn hair was a signal for rapid adjournment. Before the invading coalition had nicely started their work of destruction, Twenty-Three began to arrive and defend their isolated stronghold with a vehemence that quickly put their enemies to rout. Fire nozzles played in all directions and the

retreat began. Many prisoners were taken and baptised and the war was then carried into the camp of the enemy. The Old Residence soon fell to the veteran troops of Twenty - Three. Though stoutly defended with hose and slop pails, the supply of water was inadequate. It was then that a stern edict from the powers that be brought hostilities to an end. Satisfied with their revenge the troops returned, brandishing bannisters and green neck-wear.

At dinner victory was celebrated in true Irish fashion. Led by a pale-faced and sanctimonious priest in company with a fiery-headed, bona fide son of Erin, clad in plug hat and tail coat, over a hundred "plug uglies" (to quote our

acid-tongued, though amiable Dean) paraded with shillelaghs and Irish confetti. A word of blessing and three cheers for Ould Oireland were followed by an expression of gratitude to Twenty-Five and Twenty-Six. They were invited to drop in at Mills Hall at any time. Peace at length reigned after a word of exhortation from the representative of law and order who carves the joint when not interrupted by other more professional duties.

The water has dried up, the bannisters have been replaced, neckties have been renewed, and St. Patrick is still dead, but as Mike says, "the seventeenth of March, 1923, is not forgotten. Begorra!

A Successful Cantata

Mr. Gladstone Brown and the Choral Club, in spite of many handicaps, have been able to render a splendid musical entertainment in Bradbury's cantata, "Daniel".

The male section of the choir maintained last year's excellence of volume and quality of singing and throughout, its parts were exceedingly pleasing. The ladies' chorus, however, was not so well done as last season. While the quality of their singing was very good, there were not sufficient girls to balance the volume of male parts.

The fervent praise to God in "Sing, O Sing, and Magnify the Lord"; the final exuberant burst of joy in "Freedom Again," and the harmony in the farewell to the dead appealed to the audience and were quite well done.

Miss Armour as the Queen and the Misses Wishart and Williams as the sisters of Azariah sang their parts well. Unfortunately, it was necessary to omit a portion of the cantata containing a

beautiful solo part, which was to have been rendered by Miss M. Stoddart.

Professor Blackwood took the King's part in the place of Mr. Moore who was ill. He sang with a full richness of voice which was really appreciated. Mr. Wishart as Daniel and Mr. Young as the herald sang their parts exceedingly well.

Miss McLaughlin's violin solos were well rendered and appreciated. Mrs. F. L. Ferguson accompanied the Club and vocal numbers with that ease and interpretation which reveals a sympathetic study of the score.

If the musical education of the College is not going to be neglected, it would appear that more interest must be taken in the musical events. Much time and effort is demanded from choral members in preparation for the Club concert, but when a well-chosen, highly-finished musical production is the result, there are still many in the College who will appreciate it fully.

"The French Club Present"

Heartiest congratulations are due the executive of the French Club, who were instrumental in staging so successfully the delightful farce, "L'anglais tel qu'on le parle" (English As It Is Spoken). The large and appreciative audience, which filled the gymnasium on the evening of February 27th, were amply repaid by the excellence of the production which they witnessed.

That the play should be so successful and enjoyable came as a distinct surprise to many of the student body, whose impressions of "la belle langue" had been formed from bitter experiences with irregular verbs.

The play in brief deals with the troubles of Betty Hogson and Julien Cicondel, a young Frenchman employed in London, who have eloped to Paris, despite the injunction of Betty's father to wait until Julien shall become partner in the firm for which he works. The lovers engage rooms at the Hotel de Cologne, where they register as M. et Mme. Philibert. A substitute interpreter, Eugene, whose knowledge of English is limited to "Yes! Yes!"—further complicates the situation when Betty's father arrives. In a rage at being misunderstood, the irate Hogson summons the police.

Placed between the Englishman and the puzzled police inspector, the quick-witted interpreter invents on the spur

of the moment a tale of a stolen pocket-book. A picture of Julien, exhibited by Hogson, is accepted by the police as a likeness of the thief.

When the Inspector arrives with Julien, there are further complications. Everything is finally cleared up, however, when a telephone message from London announces that Julien's chief has come across with the partnership. Hogson immediately bestows his daughter on Julien.

All players took their parts well. Misses E. Scott and K. Armour, taking the roles of Betty and the Hotel Clerk respectively exhibited every familiarity with the French language.

Gord. Beattie, as Julien, spoke his parts with a distinctness, which, coupled with some very effective gestures, interpreted many of his speeches. E. T. Goring, the interpreter, provided the humour in a very able manner, while D. Wharton seemed quite at home as an exasperated father. The minor parts as played by W. G. Le Maistre, O. R. Evans and W. Harris, were ably interpreted.

A short dance concluded a very delightful evening, which was fully enjoyed by all. Mr. Unwin, who was the guiding spirit of the production, should feel encouraged by the success of this venture to repeat it at some future date.

The Public Speaking Contest

The Annual Public Speaking Contest was held in Massey Hall on March 16th. Six speakers competed: they were Messrs. S. A. Hilton, G. C. Horne, J. R. Kirk and A. A. Werner, of Class '23, and S. R. Felker and M. McArthur

of Class '24. The speeches were of a high order, despite the fact that the speakers were handicapped by having to deliver them in only a partly-filled auditorium, the number of students attending being very small. The ad

dress of S. A. Hilton upon the agricultural position of the Maritime Provinces was awarded first place.

The prize this year is a handsome cup, donated by the United Farmers of Ontario to the Union Literary Society for annual competition in public speaking. In addition to having his name inscribed upon it, the winner receives a gold medal. This being the first time the cup has been competed for, Mr. Hilton is to be especially congratulated upon being the first student to win it.

During the evening F. B. Hutt was presented with the Class '05 Scholarship by Prof. LeDrew, a graduate of that year. Class '23 debating team, winners of the inter-year series, received the Class '19 medals from Prof. Jones. Prof. Steckley made his initial appearance before an O. A. C. audience by presenting W. K. Riddell with the Stock Judging Medal, awarded to the O. A. C. man scoring highest at the Chicago Stock Judging Competition.

I Want a Wee Wife of My Own

Seldom indeed has a more enjoyable impromptu serenade ever been staged on the campus than that which greeted Mr. Springer on the evening of the 6th of March. Rumors—more or less substantiated—had for days been drifting about the campus regarding Mr. Springer's approaching wedding. Once confirmed, these rumors gave the student body an excellent opportunity of

arranging a charivari in honor of the happy man. No sooner suggested than accomplished!

Shortly before midnight an unwonted bustle in both the Old Residence and Mills Hall heralded the preparations for the celebration. Suddenly the stillness was broken by the booming of a bass drum—and lo! a torchlight procession issued from Mills Hall. In short order the Bursar's residence was surrounded by a yowling mob, armed with Swiss chimes, drums and tin whistles. The musical strains which assailed the ear were rather nondescript—and punctuated by the discordant yelling of three hundred throats produced an effect weird to the nth degree. Succumbing to the seductive strains, the Bursar finally appeared at the door—there to receive the boisterous congratulations of the students.

Scene II. shifts to the steps of MacDonald Hall, where the crowd gathered to witness a marriage ceremony, under the personal direction of "Hymen". The ceremony over, three cheers were given for Miss Montgomery and Mr. Springer—after which the marauders dispersed.

Scene III. takes place in the Dining Hall next evening at tea time. On every table were some of the genial Bursar's "Smiles 'n Chuckles"—(in half pound box)—with the naive invitation, "Join me in 'Smiles 'n Chuckles.'—Steve Springer. This gracious act won everybody's approbation. Truly, "All the world loves a lover."





Literary Society

THERE has been two meetings of the Macdonald Literary Society this term. The first meeting was put on by the Junior Associates. The Book Review, Current Events, Instrumental and Recitation were very interesting. It was a very short meeting.

The last meeting was put on by the Faculty of Macdonald Institute. Miss Cruickshank gave an excellent review of Miss Chapman's book, "God's Green Country." Miss Chapman is a graduate from Macdonald Institute, and in

her book there are many references to the College. Miss Fuller entertained by an instrumental. Misses Conover, Reed, Gayman and Thompson danced the Irish Jig. Professor Le Drew gave an amusing account of Current Events. Professor Blackwood sang a solo, and Dr. McLean gave a talk on "Modern Irish Literature". This Literary was enjoyed more than any put on this year. The rest of the classes must endeavour to keep up to this standard.

Not Leap Year But—

On Monday evening, March 10th, the Junior Classes entertained their friends from across the campus. The gentlemen were invited to be present at this dance and their fair partners thoughtfully filled the programmes and sent flowers to the men. A very pleasant evening was the verdict given by all present. We hear that the Home-maker Class is giving a similar dance in the near future. The Seniors, however, are too dignified and also too studious (just now!) for such frivolities.

In Memoriam

We are very sorry to hear of the death of one of our last year's graduates. Miss Bessie Reed, '22, who died on March 14th, of flu, developing into pneumonia. Miss Reed was a brilliant pupil here and was very successful as teacher of Domestic Science in the Normal School at Truro, N.S. We

extend our sincerest sympathy to her bereaved family.

The First Annual Indoor Meet

Macdonald Hall held its first Annual Indoor Meet in the College Gymnasium, Saturday, March 3rd. It was quite a success, from all accounts, though if more girls had turned out, the events would have been more interesting. The Senior Associates (the second largest class) had only two entries, which is to be regretted.

The Junior Normals and the Short Course won the banner for the highest number of points. Their name or crest is being put on the banner, which is being hung in the reading room in Macdonald Hall. The banner is to be contested for in future years.

Miss Jean Robertson maintained the title of grand champion won in the outdoor meet last fall. Miss Helen Watson (options) came a close second.

Basket Ball

The Basket Ball season closed with an exciting game with the Western team. The game was held in the College Gymnasium on Wednesday, March 7th. The teams were evenly matched and a very close game resulted; in fact, one of the best games played here. The score was 14-12 in favor of the Macdonald team, after playing ten minutes overtime.

After the game the Macdonald team gave a supper and dance to the visitors.

Rifle Association

The leaders of the Girls' Rifle Association have picked out the teams for the final contests. These are as follows:

First Team—Misses Eaton, Wilford, Newman, McLaughlin and Coon.

Second Team—Misses Gurd, Barclay, Boyle, McConnell and MacDonald.

Alumnae

Miss Marion Ryan, '22, has been offered a position as head dietitian at Willard Parker Hospital in New York City.

Miss "Topsy" Bell, '22, is taking her pupil dietitian in the Willard Parker Hospital, New York City.

Miss Laura Sodin, '22, is at Johns Hopkins' Hospital, Baltimore, taking a postgraduate course.

Kay Hobbs and Alice Buckingham are going to take a post-graduate course in Johns Hopkins.

At the Student Conference

Chinese Speaker: "Speaking of diet you Canadians hear that we eat rats in China, and you are horrified. Well, in China, we hear that you eat dogs—hot dogs! We, too, are shocked."

Who Is It?

A young girl, feeling disquieted in her mind, went to her priest and said:

"Father, I want to confess to you. A young man kissed me last week."

The priest replied slowly: "Well, my daughter, how many times did he kiss you?"

"Father," the girl answered reproachfully, "I came here to confess—not to boast."

Toronto Alumnae Branch

The Toronto Branch of the Macdonald Institute Alumnae held an exceptionally interesting meeting in February, when Mrs. Jean Muldren, of Ottawa, addressed the members on the subject of forming a federation of all Home Economics and Household Science graduates of Canada. After Mrs. Muldren had given an outline of what such a body would have as their aim, and what steps would be necessary to get together all graduates of the all various institutions throughout Canada that give professional training in dietetics and allied subjects, a general discussion took place.

Those present were eager to help in forming such an organization, one object of which would be to establish a Central Registry, in which all members would be listed according to their training and experience, and to which any one desirous of securing teachers, dietitians, and so on, could apply.

A committee was formed to undertake the preliminary work of getting together representatives from the various Colleges and Universities of Canada to consider ways and means of Dominion-wide organization. Those named to act on this committee were: Mrs. Burns, Miss Ethel M. Chapman, Miss Sheffield, Miss Lampkin; also Miss Laird and Miss Parks, representing Toronto University.



The Indoor Meet

THE Annual Indoor Meet was held in the College Gymnasium, March 15th. There were two outstanding features of the meet. The first was the large number of points scored by Year '23, having a total of 85, which was more than the scores of all the other years put together. The second feature was the good performance of Pugh of the first year, who broke two records. He hung up a record of 6 feet 9 inches in the fence vault, formerly held by J. C. Pope, of the graduating class of 1914, and made in 1912. The other event was the running high jump, in which Pugh did 5 feet 5 inches, beating by one inch R. H. Clemens' record, made in 1921.

Pugh, '26, was the Grand Champion of the meet, having a total of 27 points. He wins a silver cup donated by Savage & Co., and a championship shield. T. Wood, '23, was runner-up for points with 22, and Blaney, '23, got 16. A. W. McKenzie, '23, and Heggie, '25, each got 13 points. The latter equalled the record in the running high dive.

The Seniors, '23, easily won the meet, having a total of 85 points, their nearest competitors being the Freshmen with 34. The Sophomores totalled 21, the Juniors 8 and the Vets 5.

Under the direction of the athletic officers, Parsons, Edmonds and Pridham, with Ken Forman as starter,

everything went smoothly with no delays.

The events and winners:

15-Yard Dash—G. R. Heggie, A. W. McKenzie, T. Wood. Time, 2 2-5 seconds.

60-Yard Potato Race—A. W. McKenzie, T. Wood, A. B. Medd. Time—15 1-5 seconds.

440-Yard Potato Race—T. Wood, D. R. Kelley, D. Adams. Time—2 minutes 14 seconds.

Running High Dive—G. R. Heggie, D. Adams, N. Blaney. Height, 5 feet 7 inches (equals record).

Standing High Jump—Pugh, H. N. Sneyd, E. Marston. Height—4 feet 4 inches.

Putting Shot—R. G. Richmond, W. R. Gunn (Vets.), R. Pugh. Distance—37 feet.

Three Standing Jumps—N. Blaney, Sneyd, Gunn (Vets.). Distance—27 feet 8½ inches.

Rope Climb—G. T. Jackson, D. Adams, J. R. Griffin. Time, 10 2-5 seconds.

Fence Vault—Pugh, Blaney, R. Campbell (Vets.). Height—6 feet 9 inches (record).

Chinning the Bar—T. Wood, C. G. Riley, W. K. Bunner, 21 times.

Standing Hop, Step and Jump—T. Wood, Sneyd, Blaney. Distance, 26 feet 9 inches.

Running High Jump—R. Pugh, Heggie,

McKenzie. Height, 5 feet 5 inches (record).

Standing Broad Jump—Blaney, W. K. Bunner, McKenzie. Distance—9 feet 3½ inches.

Hitch and Kick—Pugh, McKenzie, Blaney. Height—8 feet, 8 inches.

Pole Vault—J. McMillan, Rittenhouse, Rintoul. Height—8 feet, 8 inches.

Rope Vault—E. Marston, Wood, McMillan. Height—10 feet 6 inches.

Relay Race—1. Third Year; 2. Second Year; 3. First Year.

Basketball

Sifton Cup Series

O. A. C. II., 24; UNIVERSITY COLLEGE, 16

On February 17th, O. A. C. II.'s basketball team journeyed to Toronto and handed a defeat of 24-16 to University College. This game made the third successive win for the O. A. C. team in their group, and made their chances for winning their group almost sure.

In the first half, the O. A. C. quintette outscored their opponents 12 to 3, but in the last half University improved greatly and scored six baskets to O. A. C.'s five. For O. A. C. Stanley and McEwan played a good game, each getting four baskets.

O. A. C. lineup—McEwan, centre; Wilson and Stanley, forwards; Horne, and Buckley, guards; Mowat, Daly and Pugh, subs.

FORESTRY, 9; O. A. C. II., 14

The College Seconds' basketball team improved their chances for the Sifton Cup when they defeated Forestry, February 21st, in the College gymnasium. The final score was 14-9.

The O. A. C. team did not get into their proper stride during the first few minutes, and as a result Forestry got two baskets before College counted any points. But when the first half was concluded the Ag. men lead by 13-5. There were a number of fouls com-

mitted by both sides, which slowed up the game considerably. There was little scoring by either side during the last half. For the College team, Harvey, McEwan, Wilson and Daly played a good game.

O. A. C. lineup—McEwan, centre; Harvey, Stanley, forwards; Buckley, and Horne, guards; subs., Horne, Daly and Mowat.

UNIVERSITY COLLEGE, 16; O. A. C. II., 22

The O. A. C. II. basketball team won their group in the interfaculty series when they defeated University College, February 21st, at the O. A. C. gymnasium. A fair turnout of rooters witnessed the game and they got their money's worth.

The Aggies were a little slow in getting away to good playing, and in the first part of the game the score was close. At half time O. A. C., led by only two points. In the second half the Aggies scored ten points to their opponent's six, and the game ended, 22-16. Play was fast and strenuous throughout, and the University players put everything they had in an effort to win and thus tie for winners of the group.

Weber was the star for the visitors, getting five baskets, while Harvey and Wilson were best for the O. A. C., with

Buckley and McEwan also putting up a good game.

O. A. C. lineup—McEwan, centre; Wilson and Harvey, forwards; Buckley and Horne, guards; Mowat, Daly and Pugh, subs.

VARSDITY II., 24; O. A. C. I., 23

The spectators, who turned out on February 24th to the College gymnasium, saw one of the best and most exciting games of basketball played this winter, between Varsity II.'s and O. A. C. I.'s. Neither team had victory in its grasp until the final whistle blew, and not until about five seconds before the end of the game did Varsity score the winning basket, which made the score 24 to 23. It was a great game to win but the O. A. C. team showed real fighting spirit, the kind a team ought to have. Outscoring their opponents in the second half, it was a hard game to lose in the last ten seconds.

In the first half, Varsity scored a total of eighteen points to O. A. C.'s thirteen. The second half was the most exciting when up till three minutes to play O. A. C. had outscored Varsity 8-4, making the Aggies only one point behind. After a two-minute rest Holman made a nice long shot, giving O. A. C. the lead by one point. The last two minutes was an exhibition of real basketball, when each team was putting forth its greatest effort to score. About ten seconds before the whistle blew Varsity snatched victory from O. A. C.'s hands when Potter tossed the ball in for the final basket, making the score 24-23 in favor of Varsity.

There was little to choose between the two teams. Varsity worked together well, Potter and Bell putting up a fine game. For O. A. C. some were slightly off form, but Schenk played an excellent game and was the best man on the floor. Dickson and Holman played in their usual good form.

O. A. C. lineup—Felker, centre; forwards, Dickson and McKenzie; guards, Schenk and Heatherbell; subs., Holman and Marshall.

O. A. C. II., 5; SENIOR DENTS, 40

The O. A. C. second team played a game of basketball, in the play-off series for the interfaculty championship, with Senior Dents on Friday, March 2nd. The College team was greatly outclassed and lost by the overwhelming score of 40-5. Buckley and Horne, two regulars, were unable to play, and McEwan at centre played only a few minutes, owing to a bad knee. This, to some extent, accounts for the great difference in score.

O. A. C. lineup—Wilson, Mowat and Stanley, forwards; McEwan and Pugh, centre; Daly, Schneiker and R. McKenzie, guards.

Intermediate

Intercollegiate

O. A. C. I., 18; WESTERN U., 38

O. A. C. I. played their last game of basketball in the Intermediate Intercollegiate with Western "U." at London on February 28th, and went down to defeat to the tune of 38-18. Though the score was one-sided, the brand of basketball played was very good. The floor was a strange one to the Aggies, which to some extent accounted for the large margin by which Western won.

The first half ended 18-9 in favor of Western and in the second half each team scored the same number of points as in the first half of the game. Hungerford and Johns put up the best game for Western, while Schenk was the outstanding man for O. A. C.

O. A. C. lineup—Right forwards, McKenzie and Schenk; left forwards, Hamilton and Holman; centre, Felker; guards, Heatherbell, Dickson and Marshall.

Our Hockey Team

Considerable could be written about our College hockey team and its doings of the past winter, but we do not wish to glory about our victories or lament over our defeats. A word, though, of appreciation is due to the team that has represented our College in hockey, for though sometimes defeated, yet in all games they did their best, showed good sportsmanship and brought credit on themselves and to the College.

In the Intermediate Intercollegiate Varsity Seconds won, but only by a small margin. In the City League the team was in a three-cornered tie, and in the play-off lost the championship. In the first part of March, the team, advancing the money themselves because of the stringent circumstances of the Athletic Association, entered the Agincourt Tournament. Four games were played, three won and a tie. Each player came back with a gold watch. For several days many of their classmates wanted to know the time whenever the conquering heroes were within hailing distance.

The management of the Agincourt Rink wrote President Reynolds, complimenting the team on its sportsmanship and good behavior. Though we do not hold them up as model sportsmen, knowing that all hockey players are liable to make mistakes, yet they have brought credit to the O. A. C., as have the teams entered in other lines of sport.

City League

ELORA, 1; O. A. C., 2

The O. A. C. hockey team, on February 20th, in the Guelph Arena, nosed out the Elora team by a score of 2-1. Elora was greatly strengthened by the addition of Fisher from Preston and the

game throughout was fast, with much hard checking.

Each team scored in the first period and the Aggies ended the netting in the second period, when Shoemaker scored from a rebound shot by Henry. The college men had the better of the play in the last period, but were unable to beat Woods in goal, who played a star game.

For the College Beattie played his usual stellar game in goal, while Shoemaker, who scored both goals, and Nichol also played first-class hockey.

O. A. C. lineup—Beattie, goal; Paterson and Nichol, defence; Shoemaker, centre; Scott and Henry, wings; Dawson, sub.

O. A. C., 0; TAYLOR-FORBES, 3

In the Guelph Arena, March 9th, with O. A. C. playing rather a listless brand of hockey, Taylor-Forbes team blanked them, 3-0.

The first period ended 1-0. In the second the College team had the better of the play, but was unable to score. Beattie in goal played his usual good game but the rest of the team were out of shape after the hard games at the Agincourt Tournament.

O. A. C. lineup — Beattie, goal; Nichol and Paterson, defence; Shoemaker, centre; Henry and Scott, wings Donaldson and Page, subs.

O. A. C., 0; SPRING & AXLE, 2

The O. A. C. hockey team played their final game for the past season when they went down to defeat before the Spring & Axle by the score of 2-0 on March 16th, in the City Arena.

The game was an exhibition of good hockey with the teams quite evenly matched, but the city team took advantage of opportunities and the College players were a little slow when they had chances to score. Spring & Axle scored

a goal in the first period and added the second in the final.

The Spring & Axle played a good game. King, for the winners, turned in a good game, and Hays in goal saved some difficult shots. Beattie in goal

stopped many difficult shots, playing his usual cool game.

O. A. C.—Beattie, goal; Paterson and Nichol, defence; Shoemaker, centre; Henry and Scott, wings; Cameron, sub.

Baseball

Inter-Faculty Series

ST. MIKE'S, 5; O. A. C., 4

St. Mike's nosed out O. A. C. by a score of 5-4 in the first game of a home-and-home series of indoor baseball in the semi-finals for the Inter-Faculty Championship at the College gymnasium, February 28th. First class ball was played by both teams, but the breaks of the game gave it to St. Mike's.

O. A. C. made the first tally in the second inning and at the end of the fourth the Aggies led by 3-1. In the fifth the visitors tied the score and added two more in the seventh frame. O. A. C., in their part of the seventh, which was the last inning of the game, staged a good rally and got one more run, but were unable to even the score.

Rittenhouse pitched a fine game for O. A. C., and Macdonald's batting was a feature, getting two safeties out of three times up.

O. A. C. lineup—T. Smith, catcher; Rittenhouse, pitcher; D. M. Beattie, first base; J. B. Smith, second base; Grant, third base; McMillan and Demaray, shortstops; Macdonald, right field; Paterson, left field.

O. A. C. WINS DOUBLE HEADER

Two very interesting and exciting baseball games were played in Hart House gymnasium, the afternoon of March 3rd, between St. Michael's College and the O. A. C. nine.

O. A. C. with Reg Rittenhouse on the mound pulled out two victories. The

first game finished 2-1, the second game, 12-7.

The first game was closely contested. The College team played snappy ball behind Rittenhouse, who pitched exceedingly well, striking out eleven men, and proving himself air-tight in the pinches. The game started out with College scoring in the first inning. St. Mike's were blanked. The second and third inning neither teams scored. The fourth inning St. Mike's got men on bases owing to errors made, but luckily only one man reached home plate. This tied the score and in the fifth inning neither team scored. The sixth inning College faced McKeon with all kinds of pep and determination, which resulted that each man up hit the ball hard, and in spite of the good fielding of St. Mike's College, forced in a run, breaking the tie. The seventh inning went through without a score.

The outstanding men for O. A. C. were McKenzie, Rittenhouse, Demaray, T. Smith and McDonald. McKenzie showed speed in base running and head-work in batting. Rittenhouse's pitching was admired by the audience, also his batting. The other players mentioned fielded and batted well.

St. Mike's having won at O. A. C., a second game followed immediately. Both teams lined up in the same order as for the first game, Rittenhouse on the mound for College, and McKeon for St. Mike's.

The game started with College at the bat. They started off in a lively style by every man hitting the ball and getting on bases. For a few minutes St. Mike's were bewildered and lost control, which cost them three runs. This grand start stimulated the play and both teams hit the ball with great vim. St. Mike's got one in this inning. In the second inning good fielding by St. Mike's kept O. A. C. down to one run. St. Mike's were blanked. The next inning each team scored two runs. Both teams began hitting the ball hard and College tallied four runs in the fourth, and St. Mike's got two, making the score 10-5. In the last three innings, each team scored twice, making the final score 12-7, and this entitled O. A. C. to meet Senior Dents for the Inter-Faculty Championship.

For the College in the latter game, Demaray, Thompson, McMillan and McKenzie stood out most prominently.

O. A. C.—T. Smith, catcher; Rittenhouse, pitcher; D. M. Beattie, first base; J. B. Smith, second base; A. W. McKenzie, third base; McMillan, Demaray, shortstops; Macdonald, right field; Thompson, left field.

SENIOR DENTS, 5; O. A. C., 7

A good crowd of rooters, among them several Mac Hall girls, turned out to the gymnasium, March 8th, and saw O. A. C. defeat the fast Senior Dents' indoor ball team by the score of 7-5. Both teams did some excellent work. The visitors showed up strong in fielding. They were unable to hit Rittenhouse, who struck out twelve men, while Crawford fanned only six O. A. C. batters. Rittenhouse's pitching was the feature of the game, and he fielded well everything that came his way. Tommy Smith was the star hitter, getting four hits out of five times at bat. O. A. C. got sixteen hits to the Dent's twelve.

In the first inning, Dents went to bat and scored one run to O. A. C.'s four. After the first inning both sides settled down. Up to the fifth, Dents did not get a man past third, but in the fifth, seventh, eighth and ninth, they got a run in each. O. A. C. added one, more in the second, seventh and eighth making a total of 7-5.

O. A. C. lineup—T. Smith, catcher; Rittenhouse, pitcher; D. M. Beattie, first base; J. B. Smith, second; A. W. Mackenzie, third; McMillan, Demaray shortstops; G. Thompson, left field; Macdonald, right field.

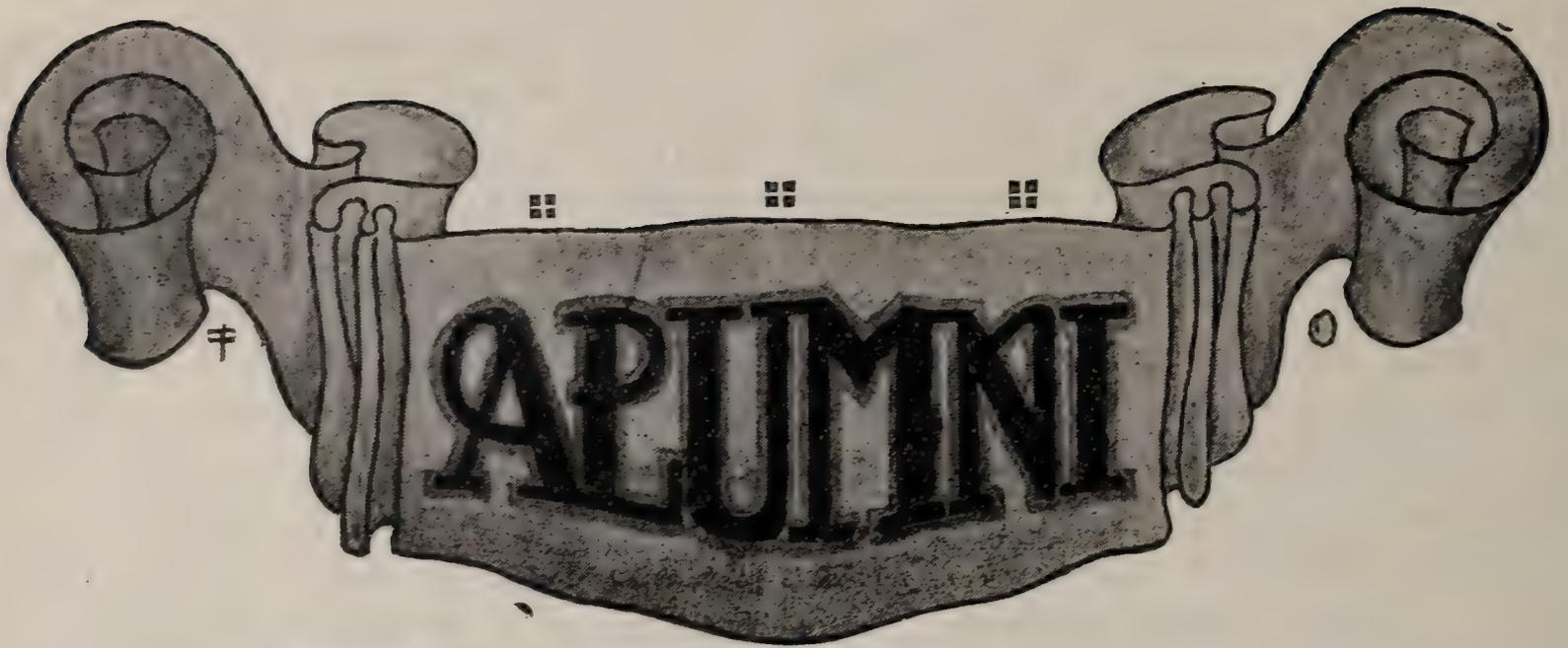
O. A. C. vs. SENIOR DENTS

Three games were necessary to determine the winners of the Inter-Faculty Indoor Baseball Trophy between Senior Dents and O. A. C. With one game to their credit O. A. C. journeyed to Toronto, March 10th, to repeat their former feat. The Dents came from behind and won two games in succession. Both games were played the same afternoon.

The first game resulted in a score of 7-5. O. A. C. played good ball with the exception of one inning, when two errors were made and the Dents got a big inning, giving them a lead which the College team was unable to overcome.

As a result of the first game the strain was too much for the O. A. C. team and they were completely outclassed. The final score was 27-5. In spite of this crushing defeat, the team has played good ball, and with Rittenhouse to rely on for pitching, the College stands a good chance to be Inter-Faculty Champions next year.

O. A. C. Team—T. Smith, catcher; Rittenhouse, pitcher; D. M. Beattie, first base; J. B. Smith, second base; A. W. McKenzie, third base; McMillan and Demaray, shortstops; Macdonald, right field; G. Thompson, left field; Paterson, spare.



Hon. Mr. Grant—Minister of Education

FAVOURS NEW NORMAL SCHOOL AT
O. A. C.

IT IS expected that in the very near future a new Normal School will be built at the O. A. C. The Hon. Mr. Grant told a deputation of the Guelph Chamber of Commerce, who waited on him at the Parliament Buildings in March, that he was in favour of the new school for teachers being located at Guelph.

The Minister of Education believes

that the new school will be the ideal place to train public school teachers for rural schools. At this school the rural problem will be dealt with and instruction given in rural leadership.

So far it has not been definitely settled just where on College Heights the new school will be built, but money has been laid aside in the estimates to commence the building—and that is the main thing.

BIRTHS

'11—Born to Prof. and Mrs. J. C. Steckley, at Guelph General Hospital, on March 10th, twins, a boy and a girl—John Douglas and Doris Ellen.

THE REVIEW joins with the rest of the students in extending to Prof. and Mrs. Steckley their heartiest congratulations.

MARRIAGE

'21—On August 23rd, 1922, F. Leslie Wood was married to Miss Inez E. Johnson, of Nashwaaksis, N.B.

“Less” is with the poultry division of the Department of Agriculture, Fredericton, N.B.

'88—Dr. G. C. Creelman, of the Canadian Colonization Association, 610 Lumsden Building, Toronto, was at the College on February 23, to judge the oratorical contest.

'95—Prof. A. T. Wiancko is now head of the Soils and Crops Department of the School of Agriculture, Purdue University, Lafayette, Ind.

'02—G. J. Christie is Director of the Agricultural Experimental Station at Lafayette, Ind.

'08—G. M. Frier, an ex-dean of residence at O. A. C., is on the Extension Staff of the Agricultural School, Purdue University, Lafayette, Ind.

'10—R. B. Cooley is now secretary of the stallion enrollment board for the State of Indiana, and associate professor of the Animal Husbandry Department of Purdue University, Lafayette, Ind.

'11—W. W. Emmerson, business manager of the "Western Grain Growers Guide," visited the College in March and renewed acquaintances.

'11—I. P. Henderson, who has been farming in Saskatchewan, is back east and is temporarily living in Guelph.

'12—Walter H. Smith, of Chatham, Agricultural Representative for Kent County, has been given a year's leave of absence on account of ill-health.

'13—Capt. P. S. D. Harding, who has been farming near Port Stanley, Ont., has been appointed sheriff of Elgin County with headquarters at St. Thomas. Prior to enlisting Capt. Harding was District Representative for Perth County.

'13—George Wilson, of St. Catharines, District Representative for Lincoln, has resigned to become President of the Norfolk Fruit Growers Association, with headquarters at Simcoe. George was district representative for Norfolk County before he went overseas, and on returning was with Prof.

Steckley in York County for six months.

'16—J. E. Archibald, Department of Animal Nutrition, Mass., Agricultural Experimental Station, Amherst, Mass. That's where you will find "Archie". Along with his regular duties he has been taking graduate work and hopes to have his M. S. in another year.

In his letter remitting his annual subscription to THE REVIEW, he says: "What's the matter with '16? Have they all died off? Come out of your shell and give us some news of your whereabouts and doings."

'19—W. C. Caldwell, Morrisburg, Ont., Agricultural Representative for Dundas County, has resigned and is going to farm at Watford.

'18—"Dutch," R. E. Middleton, who got his associate in '16, enlisted and was wounded, is now attending the School of Agriculture at Purdue University, Lafayette, Indiana, and is in his sophomore year.

'18—E. H. Parfitt, who was studying at the Agricultural Station, College Park, Maryland, is now associate in dairy husbandry at the Agricultural School, Purdue University, Lafayette, Ind.

'21—J. G. McCrimmon, who was taking post-graduate work at the Experimental Station at Amherst, Mass. has gone to Ohio State College to complete his graduate studies.

'21—G. A. "Bill" Williams is on the extension staff of the Agricultural School, Purdue University, Lafayette, Ind.

'21—J. C. Frey, who we heard has been appointed a district representative, visited the College in March.

'22—G. M. Stirrett is with the Department of Entomology, Purdue University, Lafayette, Ind.

'22—G. B. Snyder, besides being lecturer in vegetable gardening at Massachusetts Agricultural College at

Amherst, is taking post-graduate work as well.

'22—"Hank" Claus called at the College on his way home after two months' lecturing in short course work in Essex County.

'22—J. G. Munro, for some time connected with the Family Herald and Weekly Star, of Montreal, expects to leave for Kansas State Agricultural College, to take up lecturing and post-graduate work for his M. S. degree.

'23—F. H. White, who was forced to drop out at Christmas in the third year on account of illness, has regained his health and is keeping bees and chickens

at Whitevale. He hopes to return for his B. S. A. in the near future.

'24—Joe Wilmot visited the College in March. Joe is farming at Milton, Ontario.

'24—"Red," W. G. Sellars has been attending the Ferris Institute at Big Rapids, Mich., taking prep. work in Architectural Engineering, previous to going to the University of Michigan. "Red" likes the work but misses the old College spirit.

'24—C. E. Lindsay, who is farming at Nanticoke, Ont., was visiting the O. A. C. in March.



A Social Item

THE net return from farming is
 Upon the whole ridiculous,
 Although the farmer minds his
 biz,
 Is thrifty, close, meticulous.

For little gold he works and digs,
 Will at a loss negotiate,
 While with his cattle sheep and pigs,
 He finds time to associate.
 —Algol.

* * *

It All Depends

Coming in late to dinner we heard
 Inch remark that his temperature was
 105 degrees!

We looked at him aghast.

"Great heavens, man! You had
 better beat it for the hospital."

We were favoured with a glance of
 surprise and wonder.

"We were talking about incubators."

They Eat Their Bark

Mr. Neilson was telling Fourth Year
 Horticulturist Specialists about a young
 apple orchard which had been badly
 girdled by rabbits.

Davey gets an idea. "Wouldn't the
 trees live if you tacked down the bark
 at once?"

Mr. Neilson: "Your idea is a good
 one, Mr. Davey, but it would not work
 out practically, owing to the fact that the
 rabbits had already digested the bark."

Wonder if Davey thought the rabbits
 were barking the trees just for their own
 amusement, or for exercise.

* * *

This One Made Baldy Laugh

Mac—"They say Browndale Banner
 walks to the dairy barn every day for
 exercise."

Chemistry Option—"Does he walk
 alone?"

Dad—"No, he uses a cane."

Prof. Graham had imported an expert on a particular farm water system, and the second year as well as some Co-eds. were listening to an explanation of the virtues of this system. On being informed that they could ask any questions, a "Wise-Head" innocently inquired: "Can that pump pump soft water?"

* * *

How The Mighty Are Fallen

Bob C.: "But listen, Hank, Mac Hall and everybody want you to stay over for that dance on Tuesday."

Hank C.—"Nope—there's nothing to it. I simply must get back and do some fishing."

* * *

Strike One!

A few nights ago, while engaged in friendly conversation with a number of Knotty or Naughty Problem Solvers from Middle Hunt, the Dean suddenly

remembered that he, who was responsible for its sanctity, was encroaching on the sacred study hour. He was not to be allowed to have this sin drop quickly away from him, for no sooner had the blessed thought struck him than a stern knock struck the door and a voice, almost a livin' brother of the Dean's, demanded: "A little less noise, gentlemen!"

* * *

There is a certain characteristic which is common to young ladies and to railway trains—lateness in making their appearance at the appointed time.

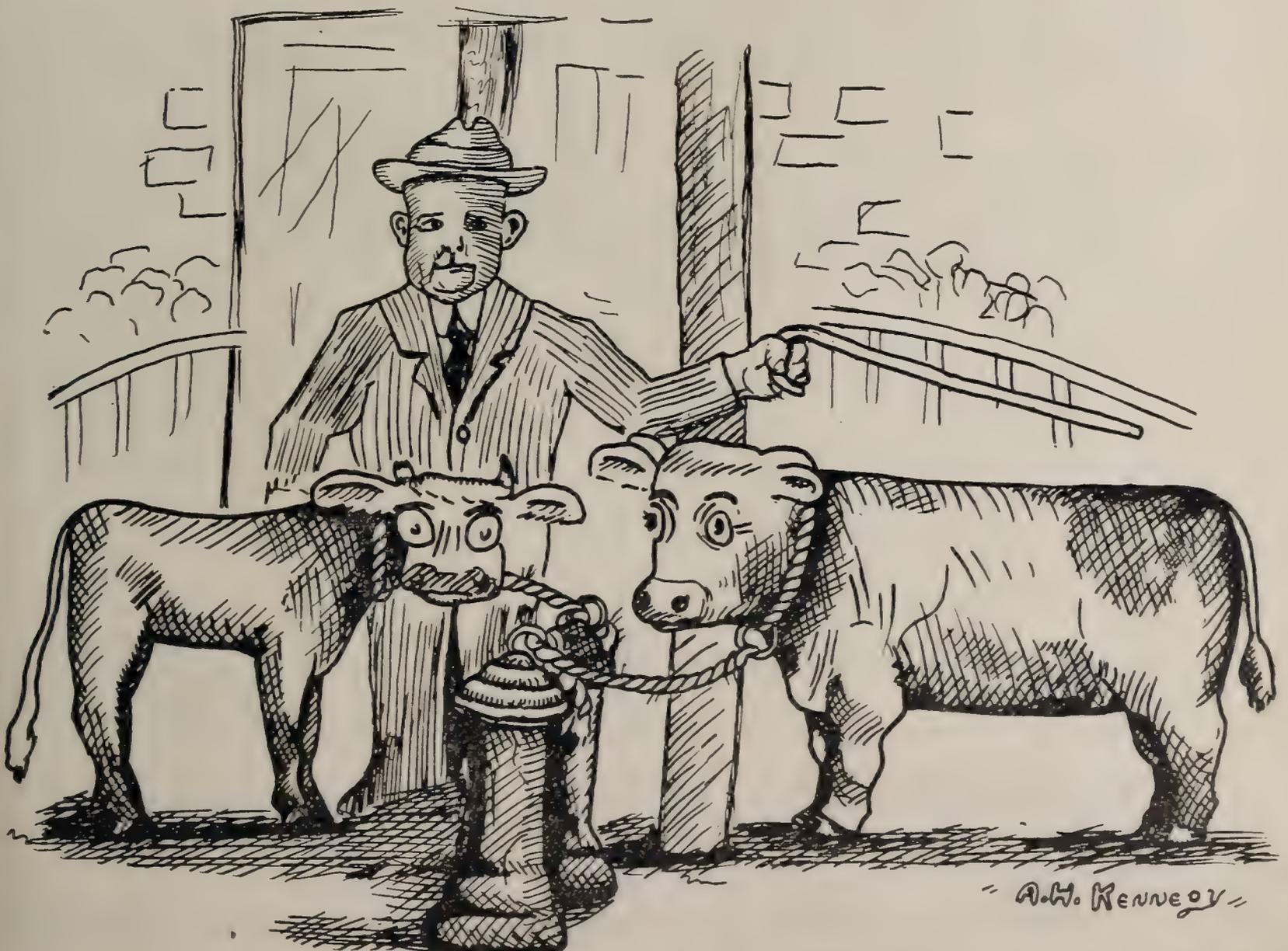
Yet our National Railways fooled one young lady who remarked that she missed the train because it was on time.

* * *

Lop-sided

"What are you looking so disheartened about?"

"I have had a terrible two weeks



— A.H. KENNEDY —

keeping this moustache bi-laterally symmetrical."

* * *

Artistic temperament does show itself in many different ways. Some time ago an obscure, unknown but eccentric artist startled New York by appearing in a black collar. We wonder whether the bright youths wearing black collars around the college are trying to startle us, or merely hoping to effect a saving in their laundry bills.

* * *

When Discretion is Needed

While classifying sheep for market under the guiding hand of Mr. Knox, a bright individual announced, "I placed number 9 as a finished ewe. She has a great depth of fleshing."

Mr. Knox: "HE has, has he!"

* * *

Poultry Professor: "What's the best way to kill a chicken?"

Mel. Walters: "Hatchet."

Professor: "I said kill it; not raise it."

* * *

Too True

Professor Graham: "What is the difference between organic and inorganic chemistry?"

Heather: "One is harder to study than the other."

* * *

So Say We

The Safety Committee has sent out a warning to all ladies visiting the country in short skirts to keep out of cow pastures. The reason for said warning is that strange calves often excite a cow's anger, and there are some strange ones!

* * *

One Sense or The Other?

Mr. MacLean, in a composition lecture on the value of words: "Now to improve the sentence, Love, like alcoholic beverages, improves with age." I

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A SPECIAL Showing of Gowns to wear for the holiday gaieties are now being featured. We cordially invite your inspection.

FOSTERS

128 UPPER WYNDHAM ST.

would suggest the use of 'old wine' in place of 'alcoholic beverages'."

Braund: "But, someone might take exception to the alcoholic flavor, why not use 'Limburger'!"

* * *

Excited Frosh: "What bell is that?"

Wise Soph: "The one right up there on the wall."

* * *

Nell: "Don't you think Tosti's 'Good-bye' is thrilling?"

Bell: "Why, my dear, he has never called on me."—Mugwump.

* * *

Zoology Lecturer: "The class will now name some of the lower species of animals, starting with Mr. Smith."

* * *

Too Late

Senior: "Look here, this picture makes me look like a monkey."

Editor of Year Book: "You should

have thought about that before you had your picture taken."

* * *

Another Swindle

There are different ways of putting yourself through college. "Nick" and Jack Chisholm have struck the best since a collection was made for a wreath for Lycidas. Pansies, C. O. D., twenty-five cents. They say trade is good, and Mills Hall should be a fertile field for any gold brick schemer.

* * *

Since listening to the Second Year Degree, give reasons on dairy cattle, Mr. Raithby has arrived at the conclusion that *conformation* is very important in this class of livestock.

* * *

The major has decided to bet on the ponies in preference to his ability to place rightly the classes of animals in Animal Husbandry. We commend the major's action in this respect.

Neilson's Chocolate Bars

Give you most value for your money. Pure, rich chocolate; finest fruits and nuts. Sixteen delightful kinds.

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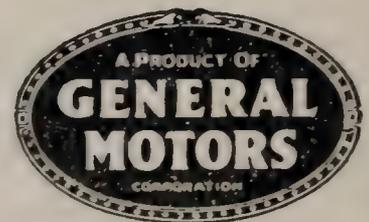
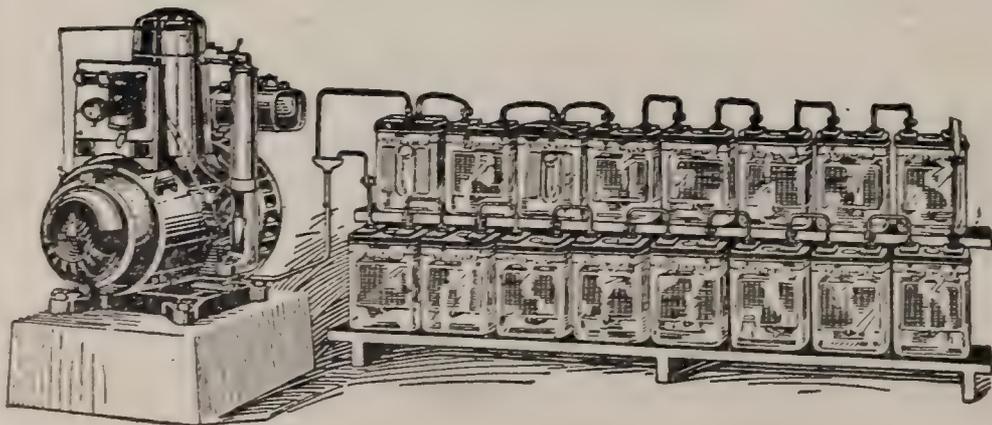
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ject.

THE CHILEAN NITRATE COMMITTEE

(B. Leslie Emslie, Director)

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TORONTO, ONT.

When several Mac Hall women rushed into Year '26 class by mistake, the boys all commenced to crow. Mr. Tomlinson's sense of humor was shocked and rightly so. It is all right to crow about but not at them.

* * *

Poultry Keeping is Getting Dangerous

Prof. Graham told the Freshmen the reason a hen lays a soft shelled egg is because she has run out of ammunition for making shells. Eggs may also blow up at times, he says.

* * *

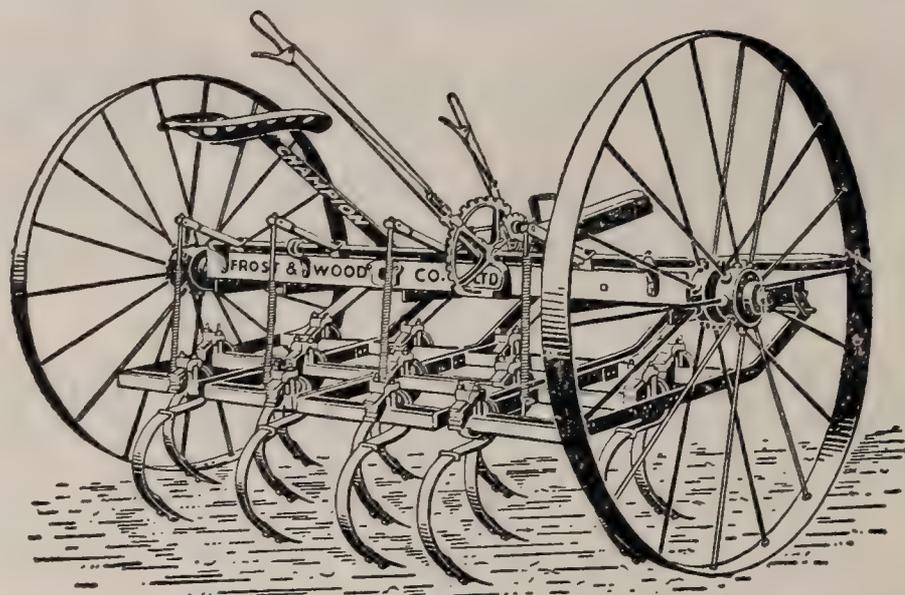
New Method of Culture

Prof. Neilson: “What would you consider a good combination for grafting?”

Hickman: “A pea scion on a nut stalk.”

Prof. Neilson: “What would that give you?”

Hickman: “A peanut.”



Thorough Cultivators

is the greatest aid to the production of satisfactory crops. Keep down the weeds. Get the plowed land in good shape for the seed. It won't be a hard task if you use

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"Champion" and "Climax"
(Spring Tooth) (Stiff Tooth)

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"Champion" Spring Tooth Cultivators have strength and capacity for heavy, hard work. Spring teeth are best quality and are strongly reinforced. Sections work independent of each other so all ground is uniformly tilled. Made with 13 and 17 teeth.

"Climax" Stiff Tooth Cultivators are great weed destroyers. They're unequalled for ridding your fields of twitch grass and keeping the land clean of other noxious weeds. A fine implement for summer-fallowing.

Either types supplied with Power Lift and Tractor Hitch when desired. Ask our local agent for fuller particulars or write us.

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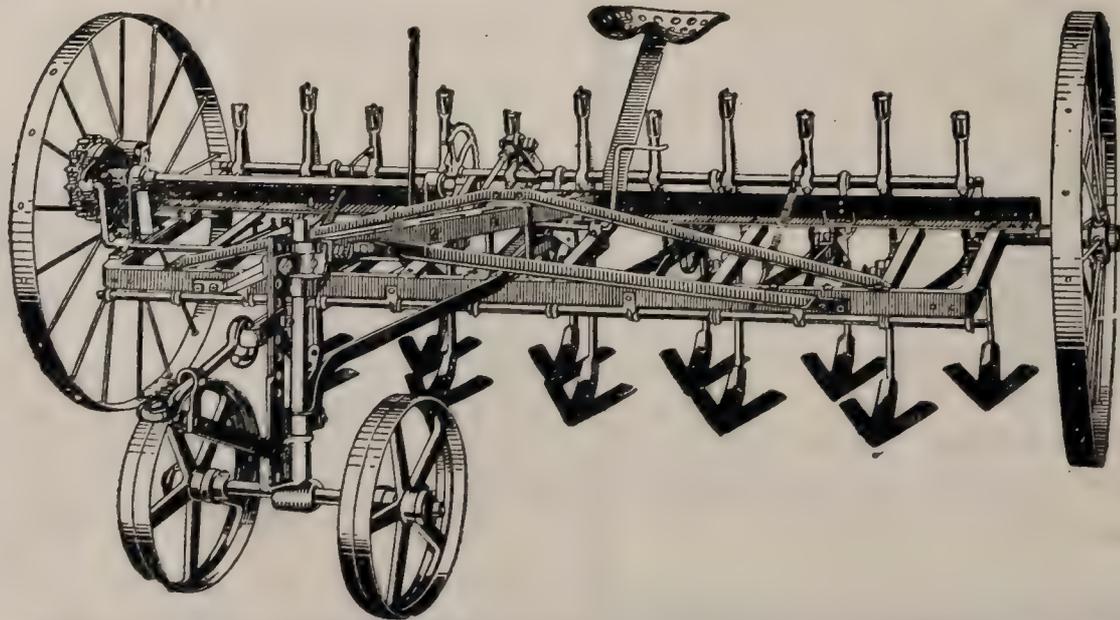
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VENTILATION OF THE BARN

Continued from page 323

Doors 80 sq. ft. x .55 = 44
 —
 Total Heat Loss = 628 B. T. U.
 per degree difference of temperature
 between outside and inside air.

External temperature difference (allowing 59 cub. ft. air per minute per cow ventilation equals:
 113,100

$$628 \times 50 \times 60 \times 59 = 29.4$$

55

In this experiment, loss of heat through the ceiling and floor was disregarded because the ceiling had a light amount of hay above it and the floor was concrete on earth.

One has only to visit barns in the

country to realize how many of them lack ventilation and have frost covered walls in the winter. The farmer can hardly expect healthy and pure-bred stock to give good service under such poorly ventilated and unsanitary conditions.

In conclusion, a few points might be listed regarding the remedy of such conditions. They are these:

1. Choose a system suitable to specific need.
2. Insulate walls wherever possible.
3. Have well constructed walls, windows and doors.
4. Have properly constructed outlets and flues.
5. Don't neglect the system once it is installed.

Give Your Hens A Square Deal, Feed

PIONEER POULTRY FOODS

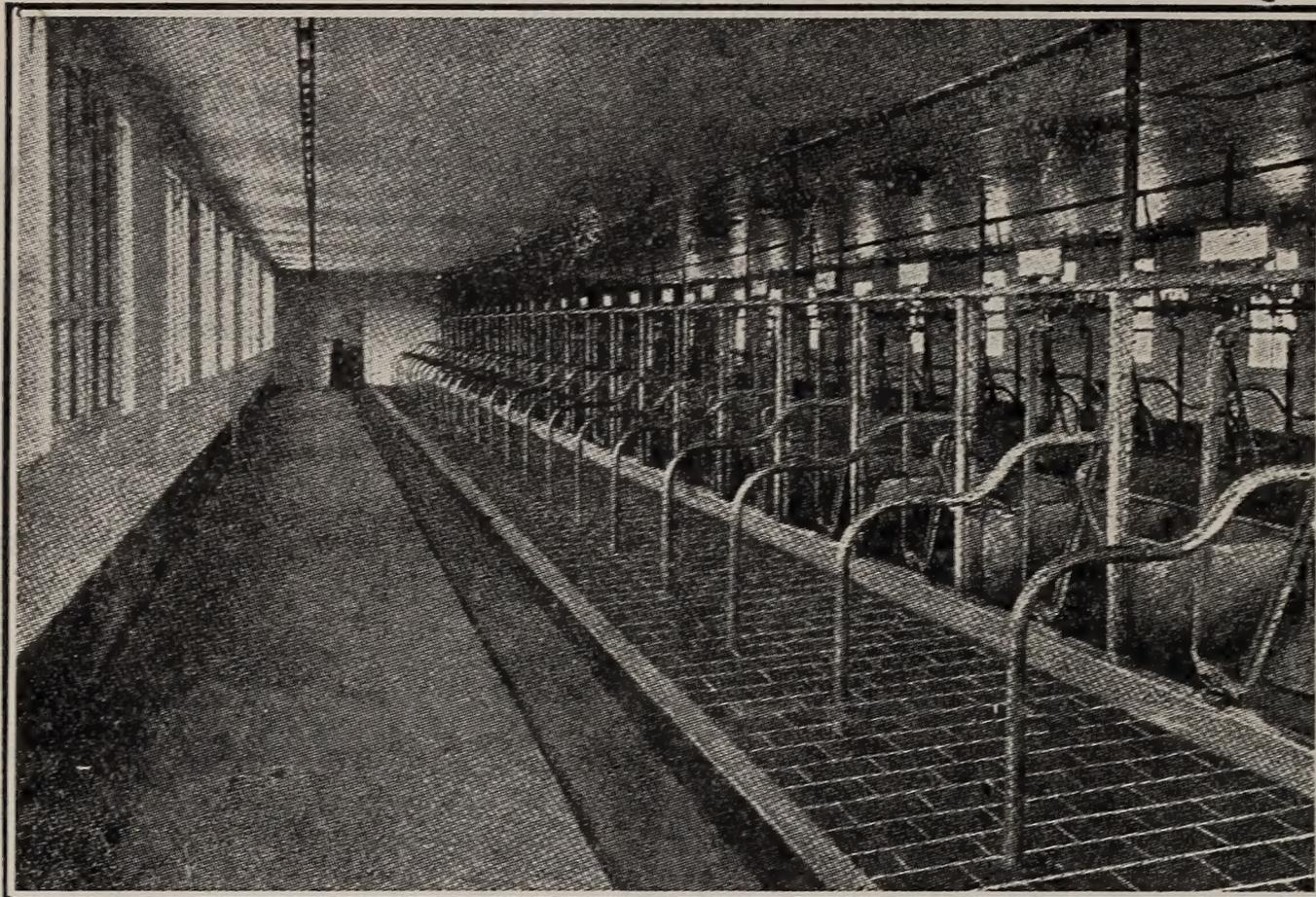
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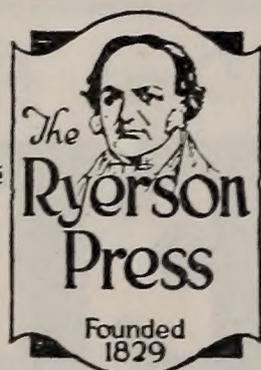
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GOD'S GREEN COUNTRY

By ETHEL M. CHAPMAN

See too, how Miss Chapman sets to work in her "Green Country" the very principles you are working with daily. The author is a graduate of the farm as well as of Macdonald Hall and knows what she writes about.

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THE TIDE HAS TURNED

Roger W. Babson, the business statistician, tells us there is now on the part of the buying public a definite turn from quantity demand to quality selection.

Some milk food producers have already noted this changing attitude of the customer and all soon will. Perhaps you are, and perhaps you are not prepared to cope with this demand for quality products, but whether you are or are not the fact remains that by testing this demand for quality you insure both quicker sales and larger profits.

Is it not then the better business policy to use these supplies which enable you to produce, and produce profitably the high score products the public desires?

Such a service has been continually rendered to Dairymen, Cheesemakers and Creamerymen by



for twenty years. And its name has become so inseparably linked with that degree of sanitary cleanliness necessary to the production of high score milk foods that "Wyandotte Cleanliness" is the standard by which dairy sanitation is judged.

And too, the results it consistently produces place your cleaning cost on an economical basis.

Ask your supply man.

THE J. B. FORD CO., Sole Manufacturers
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is our motto

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IN THE SPRING FIELDS

There dwells a spirit in the budding year—
As motherhood doth beautify the face—
That even lends these barren glebes a grace,
And fills grey hours with beauty that were drear
And bleak when the cold storming March was here;
A glamor that the thrilled heart dimly traces
In swelling bough and soft, wet, windy spaces,
And sun lands where the chattering birds make cheer.

I thread the uplands where the wind's footfalls
Stir leaves in gusty hollows, autumn urns,
Seaward the river's shining breast expands
High in the windy pines a lone crow calls,
And far below some patient ploughman turns
His great black furrow over steaming lands.

—Wilfred Campbell.